Appearing monthly
ANNUAL CUMULATIVE INDEX

INDEX 1984

ISSN 0027-5107
MUREAV 125–141/INDEX, 1–61

Sci

MUTATION RESEARCH

U. of C.
MAR 15 1985
LIBRARY

SCIENCE LIBRARY

International journal on mutagenesis, chromosome breakage and related subjects

Board of Managing Editors

H. Sobels, Leiden (Chairman)

W. Glickman, Toronto (Downsview), Ont.
C. Hanawalt, Stanford, CA (DNA Repair Reports)
H.M. Lohman, Rijswijk (DNA Repair Reports)
J. Preston, Oak Ridge, TN (Mutation Research Letters)
K. Sankaranarayanan, Leiden
F.J. de Serres, Research Triangle Park, NC
H. Takebe, Kyoto (DNA Repair Reports)
E. Vogel, Leiden
J.S. Wassom, Oak Ridge, TN

Assistant Editor M. Shelby, Research Triangle Park, NC

Elsevier

MUTATION RESEARCH

International journal on mutagenesis, chromosome breakage and related subjects

Publication schedule for 1984

MR is published according to a volume-numbering scheme that embraces all sections of the journal, in addition each section has its own code colour.

Reg (green), 'regular' volumes; EMS (blue), Section on Environmental Mutagenesis and Related Subjects; DRR (brown), 'DNA Repair Reports', special section of Mutation Research; Rev (purple), Reviews in Genetic Toxicology; GTT (red), Genetic Toxicology Testing; MRLett (yellow), Mutation Research Letters.

	Reg	EMS	DRR	Rev	GTT	MRLett
Jan.	125/1		131/1	133/1	135/1	139/1
Feb.	125/2	130/1	131/2		135/2	139/2
Mar.	126/1		131/3	133/2	135/3	139/3
Apr.	126/2	130/2	131/4		136/1	139/4
May	126/3		131/5	133/3	136/2	140/1
June	127/1	130/3	131/6		136/3	140/2
July	127/2		132/1	134/1	137/1	140/3
Aug.	128/1	130/4	132/2		137/2	140/4
Sep.	128/2		132/3	134/2	137/3	141/1
Oct.	129/1	130/5	132/4		138/1	141/2
Nov.	129/2		132/5	134/3	138/2	141/3
Dec.	129/3	130/6	132/6		138/3	141/4
	INDEX *					
Total 17 vols. 125–141 + Index	5 vols. 125–129 12 issues	1 vol. 130 6 issues	2 vols. 131, 132 12 issues	2 vols. 133, 134 6 issues	4 vols. 135–138 12 issues	3 vols. 139–141 12 issues

* Author Index and Subject Index for the year 1984 (covering all sections).

Subscription Information 1984

MUTATION RESEARCH (complete)
1984, Volumes 125–141 (17 volumes in 60 issues + Cumulative Index 1984)
Full subscription: Dfl. 3536.00 (US $ 1310.00) + Dfl. 357.00 (US $ 132.00) postage, packaging and handling. Total price Dfl. 3893.00 (US $ 1442.00).

MUTATION RESEARCH/DNA REPAIR REPORTS
1984, Volumes 131, 132 (2 volumes in 12 issues)
Part subscription: Dfl. 416.00 (US $ 154.00) + Dfl.42.00 (US $15.50) postage, packaging and handling. Total price Dfl. 458.00 (US $ 169.50)

MUTATION RESEARCH/REVIEWS IN GENETIC TOXICOLOGY
1984, Volumes 133, 134 (2 volumes in 6 issues)
Part subscription: Dfl. 416.00 (US $ 154.00) + Dfl. 42.00 (US $ 15.50) postage, packaging and handling. Total price Dfl. 458.00 (US $ 169.50)

MUTATION RESEARCH/GENETIC TOXICOLOGY TESTING
1984, Volumes 135–138 (4 volumes in 12 issues)
Part subscription: Dfl. 832.00 (US $ 308.00) + Dfl. 84.00 (US $ 31.00) postage, packaging and handling. Total price Dfl. 916.00 (US $ 339.00)

MUTATION RESEARCH LETTERS
1984, Volumes 139–141 (3 volumes in 12 issues)
Part subscription: Dfl. 624.00 (US $ 231.00) + Dfl. 63.00 (US $23.25) postage, packaging and handling. Total price Dfl. 687.00 (US $254.25)

The Dutch guilder price is definitive. The US dollar price is subject to exchange rate fluctuations and is only given as a guide.

Journals are sent by surface delivery to all countries, except the following countries where SAL air delivery (Surface Airlifted Mail) is ensured: U.S.A., Canada, Japan, Australia, New Zealand, P.R. China, India, Israel, South Africa, Malaysia, Singapore, South Korea, Taiwan, Pakistan, Hong Kong, Brazil. Air mail rates for other countries are available on request.

Subscription orders can only be entered by calender year (Jan.–Dec.) and should be sent to: Elsevier Science Publishers, Journals Department, P.O. Box 211, 1000 AE Amsterdam (The Netherlands), telex 18582 ESPA NL, or to your usual subscription agent.

Claims for missing issues should be made within three months of publication, otherwise they cannot be honoured free of charge.

The Publisher reserves the right to issue additional volumes during the course of the year. Such volumes will be invoiced before publication and delivered after receipt of payment.

In the United States and Canada: For further information concerning this or any other Elsevier Science Publishers journal, contact Elsevier Science Publishers, Journal Information Center, 52 Vanderbilt Avenue, New York, NY 10017, tel. (212) 370-5520.

Reprints 50 reprints of each article are sent to the author(s) free of charge. Additional reprints can be ordered by the author(s).

Advertising For advertising rates apply to the Publishers.

MUTATION RESEARCH

International journal on mutagenesis, chromosome breakage and related subjects

Vols. 125–141 (1984)

ANNUAL CUMULATIVE INDEX

PRINTED IN THE NETHERLANDS

ANNUAL CUMULATIVE INDEX

Mutation Research

INTERNATIONAL JOURNAL ON MUTAGENESIS, CHROMOSOME BREAKAGE AND RELATED SUBJECTS

BOARD OF MANAGING EDITORS

F.H. Sobels, *Leiden (Chairman)*; B.W. Glickman, *Toronto (Downsview), Ont.;*
P.C. Hanawalt, *Stanford, CA (DNA Repair Reports)*; P.H.M. Lohman, *Rijswijk (DNA Repair Reports)*;
R.J. Preston, *Oak Ridge, TN (Mutation Research Letters)*; K. Sankaranarayanan, *Leiden*;
F.J. de Serres, *Research Triangle Park, NC*; H. Takebe, *Kyoto (DNA Repair Reports)*; E. Vogel, *Leiden*;
J.S. Wassom, *Oak Ridge, TN*

ASSISTANT EDITOR

M. Shelby, *Research Triangle Park, NC*

EDITORIAL BOARD

C. Auerbach, *Edinburgh*
H. Bartsch, *Lyon*
D. Bootsma, *Waddinxveen*
R.C. von Borstel, *Edmonton, Alberta*
B.A. Bridges, *Brighton*
A.V. Carrano, *Livermore, CA*
E.H.Y. Chu, *Ann Arbor, MI*
J.E. Cleaver, *San Francisco, CA*
U.H. Ehling, *Neuherberg*
H.J. Evans, *Edinburgh*
M.M. Green, *Davis, CA*
R.H. Haynes, *Toronto, Ont.*
G.R. Hoffmann, *Worcester, MA*
A. Hollaender, *Washington, DC*
T. Kada, *Misima*
B.A. Kihlman, *Uppsala*
S.A. Latt, *Boston, MA*
A. Lehmann, *Brighton*
M.F. Lyon, *Harwell*
H.V. Malling, *Research Triangle Park, NC*
G.R. Mohn, *Leiden*
E. Moustacchi, *Orsay*
A.T. Natarajan, *Leiden*
W.W. Nichols, *Camden, NJ*
R.A. Nilan, *Pullman, WA*
G. Obe, *Berlin*
F. Oesch, *Mainz*
G. Olivieri, *Rome*
R.B. Painter, *San Francisco, CA*
J.M. Parry, *Swansea*
M.C. Paterson, *Chalk River, Ont.*
L.S. Ripley, *Research Triangle Park, NC*
J.J. Roberts, *Sutton*
H.S. Rosenkranz, *Cleveland, OH*
L.B. Russell, *Oak Ridge, TN*
M.S. Sasaki, *Kyoto*
J.R.K. Savage, *Harwell*
D. Scott, *Manchester*
J.W.I.M. Simons, *Leiden*
A. Sivak, *Cambridge, MA*
T. Sugimura, *Tokyo*
L.H. Thompson, *Livermore, CA*
D. von Wettstein, *Copenhagen*
G.C. Walker, *Cambridge, MA*
S. Wolff, *San Francisco, CA*
F.K. Zimmermann, *Darmstadt*

Vols. 125–141 **INDEX 1984**

ELSEVIER SCIENCE PUBLISHERS B.V.
AMSTERDAM

© 1984 ELSEVIER SCIENCE PUBLISHERS B.V. (Biomedical Division)
All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the permission of the publisher, Elsevier Science Publishers B.V. (Biomedical Division), P.O. Box 1527, 1000 BM Amsterdam (The Netherlands).

Submission of a paper to this journal entails the author's irrevocable and exclusive authorization of the publisher to collect any sums or considerations for copying or reproduction payable by third parties (as mentioned in article 17 paragraph 2 of the Dutch Copyright Act of 1912 and in the Royal Decree of June 20, 1974 (S. 351) pursuant to article 16b of the Dutch Copyright Act of 1912) and/or to act in or out of Court in connection therewith.

Special regulations for readers in the U.S.A. This journal has been registered with the Copyright Clearance Center, Inc. Consent is given for copying of articles for personal or internal use, or for the personal use of specific clients. This consent is given on the condition that the copier pays through the Center the per-copy fee stated in the code on the first page of each article for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. The appropriate fee should be forwarded with a copy of the first page of the article to the Copyright Clearance Center, Inc., 27 Congress Street, SALEM, MA 01970 (U.S.A.). If no code appears in an article, the author has not given broad consent to copy and permission to copy must be obtained directly from the author. All articles published prior to 1980 may be copied for a per-copy fee of U.S. $2.25, also payable through the Center. This consent does not extend to other kinds of copying, such as for general distribution, resale, advertising and promotion purpose, or for creating new collective works. Special written permission must be obtained from the publisher for such copying.

Special regulations for authors. Upon acceptance of an article by the journal, the author(s) will be asked to transfer copyright of the article to the publisher. This transfer will ensure the widest possible dissemination of information.

Mutation Research, 125–141/INDEX (1984) 1–11
Elsevier

Cumulative Author Index 1984

Volumes 125–141

Aaron, C.S., *134*, 143
Abbondandolo, A., *126*, 273; *129*, 243; *130*, 175
Abe, T., *130*, 113, 365, 368
Abraham, S.K., *136*, 85
Abrahams, P.J., *132*, 181
Abrahamson, S., *134*, 61
Acedo, G.N., *129*, 57
Achey, P.M., *131*, 1
Acton, A.B., *129*, 129
Adams, P.M., *139*, 133
Adler, I.-D., *130*, 175, 189
Adrian, J., *130*, 233
Afzal, V., *129*, 207
Ager, D., *140*, 107
Aghamohammadi, Z., *126*, 47; *130*, 395
Agnese, G., *130*, 27
Agostoni Carbone, M.L., *141*, 161
Ahlborg, G., *130*, 262
Ahmed, A.H., *130*, 219
Ahmed, I., *138*, 157
Ahnström, G., *131*, 19
Aikawa, K., *141*, 149
Aitio, A., *130*, 224
Alačević, M., *130*, 179, 223, 313
Alavantić, D., *130*, 245
Alba, P., *126*, 245; *130*, 256
Alcantara-Gomes, R., *130*, 171
Aldenhoff, P., *131*, 137
Alekseyevitch, L.A., *140*, 75
Alexandrov, I.D., *127*, 123
Alfheim, I., *130*, 231, 240
Alldrick, A.J., *126*, 121; *139*, 111
Allen, J.W., *126*, 159; *139*, 139
Alvi, N.K., *141*, 1
Amacher, D.E., *136*, 137
Ambrossieva, E.D., *125*, 71
Amnéus, H., *139*, 41
Amphlett, G.E., *128*, 161
Amstad, P., *130*, 198
Anders, M., *139*, 115
Andersen, P.H., *138*, 17
Anderson, D., *126*, 265; *130*, 1, 215
Anderson, V.A., *138*, 157
Andersson, B., *127*, 107
Andersson, H.C., *141*, 45
Ando, T., *130*, 367
Andrae, U., *130*, 227
Andrews, A.W., *135*, 105
Angle, A., *135*, 11
Ansari, A.A., *130*, 190
Antoine, J.-L., *129*, 173
Aquilina, G., *130*, 248
Aranda, M., *130*, 215
Arauchi, T., *139*, 183
Archer, S.M., *129*, 397
Arisawa, M., *138*, 133
Arlauskas, A., *138*, 127
Arlett, C.F., *127*, 139; *130*, 168; *132*, 73; *135*, 51
Armier, J., *130*, 179
Arnaise, S., *125*, 33; *130*, 262
Arwert, F., *132*, 181
Asakuno, K., *130*, 379
Asanoma, M., *130*, 370
Ashby, J., *128*, 11; *130*, 230; *135*, 51; *140*, 71
Askew, A.R., *139*, 143
Astolfi, S., *128*, 25
Attfield, P.V., *139*, 101
Aubry, F., *130*, 186
Aurich, O., *139*, 149
Aust, A.E. *125*, 95
Avalosse, B., *130*, 194
Averbeck, D., *130*, 181, 193, 195, 307; *136*, 49
Averbeck, S., *130*, 195
Awogi, T., *130*, 361
Ayaki, T., *130*, 385

Baan, R.A., *125*, 153
Babish, J.G., *136*, 217
Babudri, N., *140*, 175
Baca-Sevilla, S., *141*, 183
Bacun-Druzina, V., *130*, 179, 223
Badolati, G.S., *130*, 207; *133*, 161
Bahitova, L.M., *137*, 57
Bailleul, B., *130*, 169
Baird, W.M., *125*, 307
Baker, J.M., *125*, 43; *132*, 171
Baker, R.S.U., *138*, 127
Balbinder, E., *130*, 315
Balganesh, M., *125*, 15
Ball, J.C., *138*, 145
Ball, L.M., *138*, 113
Banerjee, A., *136*, 73
Barak, M., *141*, 211
Barale, R., *130*, 206; *133*, 199; *135*, 49
Barański, B., *136*, 169
Barbé, J., *132*, 15; *129*, 319
Barbin, A., *130*, 165
Bardoneschi, G., *130*, 176
Bare, J.L., *138*, 157
Barfknecht, T.R., *136*, 255
Barlow, J.H., *127*, 81
Barrett, J.C., *129*, 111; *140*, 205
Barthel, R., *132*, 113
Bartsch, H., *130*, 165, 224, 225, 239
Bass, D., *139*, 61
Basu, A.K., *129*, 39
Bauer, C., *130*, 207, 227, 228, 246, 247; *139*, 189
Baxter, C.S. *131*, 147
Beaula Helen, K.D., *138*, 55
Beaupain, R., *130*, 190
Becher, G., *130*, 231
Beck Nicolaysen, R., *130*, 251
Becker, F.F., *131*, 209
Beer, J.Z., *129*, 259
Behnsen, H., *129*, 195
Beije, B., *126*, 73; *130*, 121
Beland, F.A., *139*, 115
Belisario, M.A., *130*, 228, 237; *135*, 1
Bell, S.J., *136*, 33
Benedict, W.F., *136*, 73
Benigni, R., *130*, 246; *138*, 105
Bennett, I.P., *130*, 250
Bennett, J., *126*, 153
Bennicelli, C., *130*, 207; *133*, 161; *134*, 159; *139*, 9
Beňo, J., *130*, 254
Benoit, A., *130*, 166
Bensink, M.P.M., *137*, 95
Berglund, R.M., *136*, 1
Bergström, B., *130*, 262
Bermudez, E., *141*, 123
Berthe-Corti, L., *130*, 250
Beutin, L., *130*, 256

0027-5107/84/$03.00 © 1984 Elsevier Science Publishers B.V. (Biomedical Division)

Bewsey, B.J., *125*, 291
Bhatnagar, A., *141*, 55
Bhattacharjee, S., *135*, 211
Bhaumik, G., *135*, 211
Biagi, G.L., *129*, 291; *130*, 224
Bianchetti, A., *130*, 261
Bianchi, V., *138*, 75, 185
Bichara, M., *130*, 180
Bichet, N., *130*, 261
Biegel, J.A., *126*, 35
Billardon, C., *130*, 187, 251; *138*, 63
Bisgani, E., *130*, 195, 201, 251
Blakey, D.H., *140*, 141
Blandy, C., *130*, 234
Blijleven, W.G.H., *135*, 49
Bochkov, N.P., *127*, 149
Bockrath, R., *132*, 143
Boer, J., *125*, 283
Boeuf, H., *130*, 262
Bogajewski, J., *130*, 189, 311
Bohannon, D., *128*, 213
Boiteux, S., *130*, 185
Bonatti, S., *126*, 273; *129*, 243; *130*, 175
Bonin, A.M., *138*, 127
Booth, G.M., *135*, 97
Borba, H., *130*, 213, 243
Bos, R.P., *129*, 13; *130*, 153
Bourbigot, M.M., *130*, 242
Bourguignon-Van Horen, F., *130*, 166
Bourre, F., *130*, 166
Bove, P., *130*, 184
Boyle, J.M., *130*, 214
Boysen, M., *130*, 250
Brandenburger, A., *130*, 166
Braun, R., *130*, 190; *137*, 61
Breau, A.P., *139*, 1
Breimer, D.D., *130*, 226; *141*, 11
Brendel, M., *133*, 51
Brennan, S.A., *135*, 115
Bridges, B.A., *130*, 195; *132*, 139, 153; *140*, 67
Bridges, J.W., *130*, 236
Brieux de Salum, S., *138*, 87
Brinkworth, M.H., *130*, 215
Bříza, J., *139*, 25
Brockman, H.E., *133*, 87; *136*, 185
Brøgger, A., *130*, 251
Brøgger Hvatum, L., *130*, 251
Bronk, B.V., *131*, 205; *132*, 33
Bronzetti, G., *129*, 291; *130*, 207, 224, 227, 228, 246, 247; *139*, 189; *141*, 19
Brooks, A.L., *130*, 333
Broughton, B., *127*, 139
Brovedani, P.G., *138*, 185
Brown, R., *129*, 269
Brown Lindquist, P., *129*, 207
Bruce, W.R., *141*, 35
Bruggeman, I.M., *136*, 9; *138*, 219
Brun, G., *130*, 225
Brusick, D.J., *135*, 49
Bryant, P.E., *131*, 19; *132*, 113
Bryson, V., *130*, 141
Budroe, J.D., *135*, 131
Buijs, W., *141*, 11
Buisson, J.P., *130*, 262
Buonocore, V., *130*, 237; *135*, 1
Burger, P.M., *125*, 283
Burghardt, E., *130*, 216
Burke, J.F., *130*, 168, 201
Busbee, D.L., *131*, 37
Buselmaier, W., *139*, 87
Bussmann, C.J.M., *141*, 75
Butterworth, B.E., *141*, 123

Cabral-Neto, J.B., *130*, 171
Cacheiro, N.L.A., *126*, 177
Cai, Z.-n., *139*, 161
Caillet-Fauquet, P., *130*, 200
Cain, K.T., *126*, 177; *129*, 235
Calcagnile, A., *130*, 246; *138*, 105
Calicchio, G., *130*, 184
Callais, F., *130*, 238
Callander, R.D., *128*, 11; *140*, 71
Calleman, C.J., *127*, 1; *130*, 181
Camoirano, A., *130*, 207; *133*, 161; *134*, 159; *139*, 9
Campbell, J., *126*, 159
Camus, A.M., *130*, 224
Cantat, N., *130*, 262
Cantelli-Forti, G., *130*, 207, 224, 228
Cantoni, O., *131*, 173
Carere, A., *130*, 247, 248; *138*, 33
Carnes, B.A., *129*, 215
Carniti, G., *130*, 255
Carrano, A.V., *131*, 129; *140*, 49
Carstensen, S., *130*, 256
Carver, J.H., *135*, 115
Casciano, D.A., *135*, 131
Cassier, C., *130*, 196
Castellvi, M., *129*, 319
Castle, R.N., *135*, 97
Cattanach, B.M., *126*, 189; *127*, 81; *130*, 177
Cazenave, C., *130*, 196
Ceccherini, I., *130*, 221, 411
Cerdá-Olmedo, E., *125*, 195
Cerutti, P., *130*, 198
Cesarone, C.F. *131*, 215; *141*, 113
Chabbert, M., *130*, 196
Chadwick, K.H., *129*, 345
Chakrabarti, S., *126*, 127
Chan, J.Y.H., *131*, 209
Chan, V.L., *129*, 397
Chanet, R., *130*, 196
Chang, L.W., *130*, 417
Chankong, V., *127*, 185; *141*, 65
Chao, C.C.-K., *139*, 35
Chao, T.L., *140*, 93
Chapin, R., *138*, 213
Charles, D.J., *130*, 167
Charlier, M., *130*, 183
Chattopadhyay, S.C., *139*, 203
Chaudhuri, A., *141*, 171
Chaudhuri, M.M., *141*, 171
Chavaudra, N., *131*, 61
Chebotarev, A.N., *127*, 149
Chen, Ph., *129*, 165
Chen, X.-r., *139*, 161
Cheng, M., *126*, 35; *137*, 51
Cherian, K., *136*, 65
Chevillard, S., *130*, 187, 190
Chiesara, E., *130*, 223
Chikabira, M., *136*, 119
Chouroulinkov, I., *130*, 211, 220, 273
Choy, W.N., *130*, 159
Cilento, G., *130*, 171
Cipollaro, M., *130*, 184
Ciranni, R., *130*, 206
Claeys, M., *130*, 241
Clark, J.M., *132*, 1
Claverys, J.-P., *130*, 177
Claxton, L.D., *138*, 113
Cleaver, J.E., *131*, 123; *141*, 69
Clements, J., *135*, 175
Clemmensen, S., *138*, 137
Clode, S., *130*, 215
Cohn, J., *130*, 251
Cole, H., *126*, 47
Cole, J., *126*, 47
Cole, R., *126*, 47; *130*, 395
Colmsjö, A., *135*, 21
Combes, R.D., *130*, 216
Cominato, I., *138*, 185
Conaway, C.C., *136*, 153
Conner, M.K., *126*, 35
Conti, G., *130*, 247; *138*, 33
Conti, L., *130*, 247; *138*, 33
Coombs, M.M., *135*, 51
Cooper, A.J., *130*, 197
Coppey, J., *130*, 190
Coppinger, W.J., *135*, 115
Cornelis, J.J., *130*, 194
Cornett, C.V., *126*, 177
Corsi, C., *129*, 291; *130*, 207, 227, 246, 247; *139*, 189; *141*, 19
Cortés, F., *127*, 119
Costa, M., *131*, 173
Courtois, Y.A., *130*, 238
Cova, D., *130*, 223
Cox, B.A., *127*, 31
Cozzi, R., *130*, 252
Crajer, M.C., *130*, 253
Crebelli, R., *130*, 247, 248; *138*, 33
Crespi, Ch.L., *128*, 221

Cresteil, T., *129*, 299
Creus, A., *126*, 245; *130*, 256; *136*, 115; *138*, 169
Crewshaw, J., *139*, 189
Crippa, M., *130*, 255
Crisp, Ph.T., *138*, 127
Crofton-Sleigh, C., *135*, 31
Croisy, A., *130*, 225
Culard, F., *130*, 183
Cumming, R.B., *129*, 381
Cundari, E., *130*, 207, 227, 246, 247; *139*, 189; *141*, 19
Cunningham, M.L., *135*, 199
Cupido, M., *130*, 214
Curry, P.T., *137*, 111
Curtis, J.P.E., *132*, 171
Curtiss, S., *126*, 25
Curvall, M., *130*, 240
Czeizel, A., *127*, 175; *128*, 73

Dahlin, D.C., *138*, 21
Danford, N., *130*, 178; *139*, 127
Danière, M.C., *130*, 186
Danno, G., *130*, 375
Dansette, P.M., *125*, 123
Dansie, D.R., *136*, 73
Darroudi, F., *135*, 49
Das, S.K., *131*, 71, 97
Daune, M., *130*, 167, 168, 180
Davies, D.J.G., *130*, 219
Day III, R.S., *131*, 27, 45
Dayan, J., *130*, 253
Dean, S.W., *130*, 191; *132*, 63
DeAngelis, M., *130*, 184
Debets, F.M.H., *136*, 9
Debien, K., *125*, 95
De Boer, P., *140*, 187
Debova, G.A., *127*, 149
Decad, G.M., *136*, 147
Decat, G., *138*, 205
De Caterina, M., *135*, 193
Decloître, F., *130*, 229, 233; *137*, 123; *139*, 15
De Dreu, R., *130*, 391
Defais, M., *131*, 53
De Flora, S., *130*, 27, 207; *133*, 161; *134*, 159; *139*, 9
De Gerlache, J., *130*, 180
DeGraff, W.G., *128*, 127
Degrassi, F., *130*, 246; *138*, 99
Deguingand, S., *130*, 253
Dejour, J., *130*, 215
Deknudt, Gh., *138*, 205
De Kok, A.J., *130*, 182
De La Hera, C., *130*, 212
Del Carratore, R., *130*, 207, 227, 246, 247; *139*, 189; *141*, 19
Deleener, A., *130*, 180
Della Morte, R., *130*, 228, 237
De Lorenzo, F., *135*, 1
Delow, G.F., *128*, 161
DeLuca, J.G., *128*, 47
DeMarini, D.M., *133*, 87; *136*, 185
De Marinis, E., *130*, 242; *135*, 1, 193
Demattei, A., *138*, 87
De Meester, C., *130*, 232; *136*, 23; *137*, 79
De Meijere, F.A., *137*, 33
Demopoulos, N., *130*, 244
Dempsey, J.L., *140*, 223
Den Engelse, L., *130*, 182, 197, 204, 208
Denich, K.T.R., *140*, 103
Deparis, P., *125*, 275; *130*, 218
De Raat, W.K., *130*, 216, 217, 222, 233; *137*, 33
De Saint-Georges, L., *137*, 79
De Salvia, R., *128*, 153
Deschavanne, P.J., *131*, 61
de Serres, F.J., *130*, 73, 353; *133*, 87; *134*, 143
Desforges, V., *130*, 193
De Waziers, I., *130*, 229; *139*, 15
Dewdney, R.S., *129*, 119; *130*, 204
Dey, Ch.R., *136*, 55
Diamond, L., *136*, 65
DiGiovanni, J., *136*, 65
Di Lernia, R., *130*, 223
Dillehay, L.E., *131*, 129
Ding, Ch., *139*, 161
Dirheimer, G., *130*, 169
Distlerath, L.M., *136*, 55
Djordjević, O., *130*, 199, 253
Do-Cao-Thang, *130*, 244
Dogliotti, E., *132*, 41
Doolittle, D.J., *141*, 123
Dorange, J.L., *130*, 215, 238
Dornfeld, S.S., *130*, 87
Douglas, G.R., *140*, 141
Downie, R.H., *138*, 153
Drake, J.W., *129*, 149
Drevon, C., *130*, 168; *137*, 7
Drinkwater, N.R., *125*, 95
Ducore, J.M., *141*, 117
Düring, R., *130*, 403
DuFrain, R.J., *127*, 73; *139*, 57
Duker, N.J., *140*, 93
Dumont, P., *137*, 79
Dunkelberg, H., *140*, 117
Dunn, R., *139*, 139
Dunnick, J.K., *138*, 213
Dupuy, P., *130*, 238
Dutrillaux, B., *126*, 81, 93; *129*, 173
Duverger-van Bogaert, M., *130*, 229; *134*, 49
Dybing, E., *138*, 21
Dziubaltowska, E., *135*, 189

Ebels, I., *128*, 147
Ebine, Y., *139*, 183
Ebringer, L., *130*, 254
Eckardt, F., *129*, 3
Edgar, D.H., *130*, 217
Edgell, M.H., *140*, 219
Edwards, G.S., *136*, 209
Egami, N., *125*, 221
Eggset, G., *131*, 183
Ehling, U.H., *127*, 189
Ehrlich, W., *130*, 250
Einistö, P., *130*, 230, 262
Ekholm, P., *130*, 208
Eknaes Lier, M., *130*, 251
Elias, P.S., *138*, 1
Elias, Z., *130*, 186, 242
Ellenberger, J., *125*, 153
Elliger, C.A., *135*, 77
Elliott, B., *130*, 230
Ellis, J., *138*, 127
Emerit, I., *130*, 198
Endo, O., *130*, 361
Endo, R., *130*, 379
Enger-Valk, B.E., *130*, 170
Engstrom, J., *132*, 143
Enninga, I.C., *130*, 191, 343
Enoch, H.G., *136*, 201
Epler, J.L., *139*, 51
Erbelding, C., *130*, 175
Erfle, V., *130*, 189
Eriksson, A.W., *132*, 181
Esposito, A., *130*, 184
Evans, E.L., *136*, 173
Evans, H.J., *125*, 87; *129*, 283

Fabri, G., *130*, 248; *138*, 99, 105
Fabry, L., *136*, 23; *137*, 79
Faccioli, C.M., *138*, 185
Fahrig, R., *130*, 186
Falck, K., *130*, 208, 230, 262
Falcone, E., *130*, 248
Faljoni-Alario, A., *130*, 171
Falk, D.R., *126*, 25
Fanini, D., *139*, 133
Farina, C., *130*, 228, 237
Farrington, B.H., *129*, 215
Favart, M., *130*, 260
Favaudon, V., *130*, 201
Felton, J.S., *140*, 61
Ferguson, L.R., *136*, 223; *141*, 83
Ferrés, M.D., *126*, 245; *130*, 256
Fertil, B., *131*, 61
Festy, B., *130*, 238
Field, L., *139*, 1
Filippova, T.V., *127*, 149
Fiore, M., *130*, 252
Firth III, W.J., *125*, 213
Fishwick, B., *128*, 11

Floot, B.G.J., *130*, 197
Fonck, K., *132*, 113
Forbes, C., *141*, 205
Ford, M.D., *125*, 115
Forichon, A., *130*, 260
Fouarge, M., *125*, 23
Fournier, A., *129*, 299
Fox, M., *130*, 178, 191, 192; *132*, 63
Foxall-VanAken, S., *138*, 145
Francesconi, D., *139*, 71
Franekic, J., *130*, 179, 223
Frayssinet, C., *130*, 233
Fredholm, L., *135*, 149
Frelat, G., *130*, 220
Freund, A.M., *130*, 167
Friesen, M., *130*, 239
Frosina, G., *129*, 243
Fuchs, R.P.P., *130*, 167, 168, 180
Fugassa, E., *131*, 215; *141*, 113
Fujie, K., *139*, 203
Fujita, Y., *130*, 361; *141*, 109
Fukuhara, Y., *130*, 362
Fukunaga, M., *127*, 15, 31
Fukushima, S., *130*, 380
Fukuzawa, Y., *130*, 383
Furukawa, H., *130*, 362
Fuse, M., *130*, 362

Gad-El-Karim, M.M., *128*, 105; *135*, 225
Galiegue-Zouitina, S., *130*, 169
Galli, A., *141*, 19
Gallo, G., *131*, 215; *141*, 113
Galloway, S.M., *129*, 77, 89
Gangolli, S.D., *130*, 215; *139*, 111
Garner, R.C., *141*, 7
Garrett, N.E., *134*, 89
Garza-Chapa, R,, *141*, 183
Gatehouse, D., *130*, 209, 258
Gebauer, J., *130*, 260
Gebhart, E., *129*, 195
Generoso, W.M., *126*, 177; *128*, 65; *129*, 235; *134*, 143
Gentil, A., *129*, 141; *130*, 179
Gentile, G.J., *136*, 233
Gentile, J.M., *136*, 233
Georgian, L., *130*, 311
Georgieva, V., *130*, 243
Ghosh, P.K., *139*, 79; *141*, 55
Ghosh, R., *139*, 79
Ghosh, S., *141*, 171
Giancotti, V., *140*, 175
Gichner, T., *139*, 25, 29; *140*, 123
Gilbert, P.J., *140*, 13
Gill, D.M., *128*, 213
Gilman, D., *140*, 71
Gingerich, J.D., *130*, 212
Giordano, G.G., *130*, 184
Giorgi, R., *139*, 67
Giuliani, A., *130*, 246; *138*, 105
Giuntini, C., *139*, 9
Glatt, H.R., *130*, 226
Glickman, B.W., *126*, 9
Godley, M.J., *130*, 1
Göggelmann, W., *130*, 254
Goldstein, B., *130*, 255
Goldstein, L.S., *140*, 193
Goldstein, P., *129*, 337
Goloshchapov, P.V., *141*, 195
Gomes, M., *130*, 213, 243
González Cid, M., *138*, 175
Gordon, A., *130*, 97, 107
Gordon, W.P., *138*, 21
Gosslee, D.G., *126*, 177
Goth-Goldstein, R., *140*, 209
Goto, S., *130*, 361, 373
Gotoh-Mimura, K., *139*, 203
Gouy, D., *130*, 261
Gräbner, R., *139*, 207
Grahn, D., *129*, 215
Graf, U., *130*, 198, 211
Graham, A., *130*, 192
Graham, Ch.K., *127*, 49
Granger, M., *130*, 180
Graw, J., *130*, 209
Green, M.H.L., *130*, 1
Greff Johansen, S., *130*, 251
Griffiths, A.J.F., *133*, 87
Griffiths, T.D., *132*, 119
Grinfeld, S., *125*, 275; *130*, 218
Grivas, S., *126*, 239; *137*, 29
Groenendijk, R.T.L., *130*, 191, 343
Gross, M.R., *134*, 89
Grutman, G., *130*, 241
Gu, Z.W., *130*, 211, 273
Gualandi, G., *136*, 109
Guerra, M.C., *130*, 224
Guerrero, R., *129*, 319; *132*, 15
Gustafsson, J.-Å., *135*, 149
Guttenplan, J.B., *141*, 153
Guttman, S., *129*, 397

Haag, J., *126*, 169
Hachiya, N., *130*, 363; *137*, 133
Hadi, S.M., *141*, 1
Hagen, M., *130*, 251
Hagino, T., *130*, 382
Haimes, Y.Y., *141*, 65
Hakura, A., *135*, 139
Hall, C., *130*, 198
Hall, R.M., *131*, 115; *140*, 87
Halladay, D., *126*, 25
Halpern, M., *130*, 213, 243
Hama-Inaba, H., *140*, 159
Hamada, K., *136*, 119
Hamon, G., *130*, 233; *137*, 123
Han, A., *129*, 251
Hanawalt, Ph.C., *132*, 1
Hanham, A., *139*, 211
Hannan, M.A., *127*, 23; *136*, 201
Hansen, K., *130*, 261, 306
Hansson, K., *126*, 251
Hansteen, I.L., *130*, 239, 310
Haqqi, T.M., *141*, 175
Haresaku, M., *130*, 363
Harger, W.P., *140*, 81
Harnasch, D., *126*, 279; *130*, 210
Harper, B.L., *128*, 105; *135*, 225
Harrington, J.M., *141*, 89
Harris, M.M., *138*, 157
Harris, M.W., *138*, 213
Hart, R.W., *128*, 17
Hartemann, P., *130*, 242
Hartman, Ph.S., *132*, 95
Haruna, M., *130*, 362
Harvey, R.G., *136*, 65
Hasegawa, M.M., *125*, 105; *130*, 372
Hashimoto, Y., *130*, 363
Hass, B.S., *137*, 1
Hatanaka, M., *130*, 381
Hayami, H., *130*, 366
Hayashi, M., *127*, 129; *130*, 364; *141*, 165
Hayashida, S., *135*, 169
Hayatsu, H., *130*, 364, 368, 376; *135*, 87
Hayes, C., *130*, 97
Hayes, S., *130*, 97, 107
Hazen, M.J., *127*, 119
Hazle, J., *127*, 23
Healy, S.K., *140*, 61
Heddle, J.A., *127*, 139; *130*, 212; *131*, 223; *132*, 73
Hedner, K., *129*, 71
Heflich, R.H., *126*, 63
Heimbach, D., *130*, 260
Heindorff, K., *140*, 123
Helene, C., *130*, 196
Heller, E.P., *131*, 89
Hellgren, D., *130*, 199; *139*, 71
Henderson, L., *126*, 47; *130*, 395
Henderson, P.Th. *129*, 13; *130*, 153
Henika, Ph.R., *135*, 77
Henry, C.J., *136*, 73
Herman, M., *130*, 234
Hermann, M., *125*, 123
Hermsen, G., *130*, 208
Hesse, S., *130*, 192
Hill, R.H., *136*, 201
Hiraga, K., *130*, 379; *141*, 95
Hiratsuka, A., *130*, 374
Hisamatsu, Y., *130*, 364
Hittelman, W.N., *129*, 359
Høgetveit, A., *130*, 250
Högstedt, B., *130*, 63
Hoellinger, H., *130*, 244
Hoffer, L., *130*, 255

Hoffman, D.R., *130*, 127
Hofnung, M., *130*, 202, 220, 262; *132*, 141
Hogstedt, C., *130*, 262
Hokanson, J.A., *130*, 417
Holloway, M., *126*, 139
Holme, J.A., *126*, 205; *138*, 21
Holterman, H.A.J., *130*, 241
Hongslo, J.K., *130*. 231
Hook, G.J., *131*, 223
Horiuchi, T., *140*, 181
Horn, L., *134*, 1
Hornsey, S., *129*, 1
Horvat, M., *130*, 179
Hoskins, J.A., *129*, 235
Howard, C.A., *141*, 59
Howard, P.C., *139*, 115
Hoy, C.A., *130*, 321; *140*, 199
Hrelia, P., *129*, 291; *130*, 224, 228
Hrisoho, Z., *136*, 49
Hu, Y.-C., *141*, 153
Huang, C.C., *141*, 189
Hubbard, S.A., *130*, 236
Huberman, E., *130*, 127
Hubert-Habart, M., *130*, 234
Hude, W., v.d., *130*, 256, 257
Huet, J., *130*, 185
Huff, V.D., *127*, 73
Hughes, M., *140*, 209
Huitink, J., *130*, 391
Hull, D.R., *132*, 21
Humphries, E.H., *132*, 33
Hunsicker, P.R., *129*, 381
Hunt, C.M., *130*, 236
Husgafvel-Pursiainen, K., *138*, 197
Husum, B., *125*, 263
Hutchison III, C.A., *140*, 219
Hutton, D., *127*, 73
Hyodo, M., *129*, 389
Hytönen, S., *130*, 240

Ide, K., *140*, 43
Igali, S., *130*, 308
Ikejima, M., *128*, 213
Iliakis, G., *126*, 215
Imray, F.P., *129*, 165
Inge-Vechtomov, S.G., *140*, 75
Ino, T., *130*, 365
Inoue, H., *125*, 185
Inoue, K., *130*, 365, 368
Inoue, M., *130*, 380
Inoue, T., *130*, 367; *140*, 169
Inui, N., *125*, 105; *130*, 372
Irr, J.D., *128*, 115
Isemura, T., *130*, 113
Ishibashi, T., *130*, 369, 383
Ishidate Jr., M., *127*, 129; *130*, 364, 374, 380, 381, 386; *136*, 159; *140*, 27; *141*, 165
Ishiguro, T., *130*, 379
Ishii, C., *125*, 185
Ishikawa, T., *129*, 33
Isomura, K., *136*, 119
Ito, K., *130*, 362; *140*, 181
Ito, N., *129*, 389
Itoh, T., *130*, 361
Iwahara, S., *130*, 366, 378
Iwamoto, Y., *125*, 213; *126*, 145
Iwamura, H., *135*, 139
Iwaoka, W.T., *141*, 131
Iyehara-Ogawa, H., *140*, 169
Iyer, V.N., *131*, 197

Jacobs-Meijsing, B.L.M., *130*, 170
Jacobson, E.D., *129*, 259
Jacquet, P., *128*, 181
Jacquot-Deschamps, J.M., *130*, 238
Jägerstad, M., *126*, 239; *130*, 378; *137*, 29; *140*, 55
Jäkel, H.-P., *137*, 61
Järventaus, H., *130*, 249; *138*, 197
James, D.A., *128*, 195
James, M.R., *130*, 168, 201
James, T.E.B., *126*, 265
Janiaud, P., *130*, 225, 234
Jansson, T., *130*, 240
Jaylet, A., *125*, 275; *130*, 218
Jeggo, P.A., *132*, 189
Jenkinson, P.C., *130*, 215
Jennings, C.J., *139*, 57
Jensen, N.J., *130*, 248; *138*, 17
Jensen, T.E., *138*, 145
Jinno, K., *141*, 141
Joachim, F., *136*, 147
Joe, C.O., *131*, 37
Jones, C.A., *130*, 127
Jongen, W.M.F., *130*, 168, 231, 241; *136*, 107
Josephy, P.D., *141*, 23
Jotz, M.M., *136*, 173
Juon, H., *130*, 211
Juranka, P., *129*, 397
Jyosui, S., *140*, 169

Kabarity, A., *135*, 181
Kada, T., *125*, 145; *129*, 25; *130*, 365, 367, 371, 380; *131*, 101; *141*, 149
Kaden, D.A., *128*, 47
Kadhim, M., *136*, 93
Kadotani, S., *138*, 133
Käfer, E., *128*, 137; *135*, 53
Kain, S.R., *127*, 9
Kaina, B., *139*, 149
Kakimoto, K., *140*, 169
Kaldor, J., *134*, 1
Kalopissis, G., *135*, 49
Kalweit, S., *128*, 59
Kamra, O.P., *125*, 205
Kananishi, N., *130*, 365
Kanaya, H., *130*, 366, 382
Kanazawa, K., *130*, 375
Kaneko, E., *130*, 383
Kaneko, M., *131*, 157
Kangalingam, K.K., *136*, 73
Kannan, K.L., *134*, 143
Kantor, G.J., *132*, 21
Kaplan, S.D., *134*, 167
Kappas, A., *130*, 243, 244, 308
Karkhanis, D.W., *139*, 1
Kasai, H., *130*, 366
Kasica, V., *136*, 173
Kato, K., *130*, 361
Kato, M., *130*, 365; *141*, 149
Kato, T., *130*, 372, 375
Kato, Y., *130*, 370; *140*, 169
Katoh, M., *130*, 366
Katz, A.J., *130*, 184; *133*, 87; *136*, 185
Katz, M., *136*, 81, 247
Katz, S.E., *130*, 141
Kaukanen, E., *130*, 208
Kawai, K., *130*, 362
Kawai, T., *130*, 379
Kawamura, T., *130*, 383
Kawazoe, Y., *135*, 139
Keller, Ph., *126*, 53
Kelley, F., *130*, 262
Kemp, L.M., *132*, 189
Kemper, F.H. *130*, 193
Kempf, Ch., *130*, 203; *132*, 197
Kempf, J., *130*, 203; *132*, 197
Kennelly, J.C., *137*, 39
Kerklaan, P.R.M., *125*, 153
Kerry, D., *130*, 315
Kesavan, P.C., *136*, 85
Khromov-Borisov, N.N., *140*, 75
Kidson, C., *129*, 165
Kihlman, B.A., *126*, 251; *141*, 45
Kikuchi, Y., *128*, 173; *130*, 113, 378
Kilbey, B.J., *130*, 183
Killpack, S., *141*, 69
Kimura, T., *130*, 365, 368
Kinjo, Y., *130*, 365
Kiriyama, S., *130*, 365; *141*, 149
Kirk, K.M., *125*, 75
Kirk, M., *126*, 189
Kirsch-Volders, M., *130*, 180, 305
Kishi, K., *130*, 367
Kitamori, S., *130*, 367, 370
Kitano, Y., *130*, 365
Kitazume, M., *129*, 373
Kitchin, R.M., *137*, 111
Kiuchi, H., *130*, 367
Klapwijk, P.M., *125*, 229
Klasterska, I., *125*, 269
Kligerman, A.D., *137*, 51

Klopman, G., *126*, 139, 227
Klufas, C., *126*, 25
Knasmüller, S., *130*, 218
Knight, T.J., *140*, 7
Knoll, M., *140*, 127
Knook, D.L., *132*, 129
Kobayashi, H., *130*, 368
Kodama, T., *130*, 384
Königstein, M., *139*, 83
Koffel-Schwartz, N., *130*, 167, 168
Kogiso, S., *130*, 368
Kohan, M.J., *138*, 113
Kolman, A., *139*, 167
Komives, E.A., *128*, 47
Kooijman, S.A.L.M., *130*, 217, 233
Kornbrust, D.J., *136*, 255
Kosaka, H., *130*, 365, 368
Koshi, K., *130*, 369
Kostić, Lj., *130*, 199, 253
Kouri, R.E., *136*, 73
Kovac, R., *128*, 167
Kovacs, E., *131*, 231
Kowalski, Z., *135*, 189; *136*, 169
Koyama, H., *129*, 389
Krames, J., *140*, 117
Krell, K., *129*, 259
Kriek, E., *130*, 208
Krokan, H., *131*, 183
Krone, C.A., *141*, 131
Kubitschek, H.E., *129*, 153
Kuroda, K., *130*, 369
Kuroda, Y., *130*, 369
Kuromoto, M., *130*, 367, 370
Kurosawa, Y., *139*, 183
Kwok, E., *131*, 223

Labal de Vinuesa, M., *138*, 87
La Belle, M., *132*, 51; *141*, 41
LaChance, L.E., *127*, 49
Lachenal, C., *130*, 238
Lähdetie, J., *140*, 137
Lagerweij, W.J., *130*, 241, 391
Lahitová, N., *130*, 254
Laib, R., *130*, 165
Laires, A., *130*, 213, 243
Lakhanisky, T., *132*, 41
Lam, H.R., *138*, 137
Lamb IV, J.C., *138*, 213
Lambert, B., *130*, 199, 258, 312; *139*, 71
Lambotte-Vandepaer, M., *130*, 229; *134*, 49
Lang, R., *135*, 219
Lange, P., *129*, 327
Langenbach, R., *126*, 159
Lans, M., *130*, 180
Lares, L., *125*, 33
Larisch, M., *139*, 83
Larripa, I., *138*, 87
Larsen, M.M., *128*, 65
Larsen, S., *132*, 143
Lascialfari, D., *130*, 221, 411
Lasne, C., *130*, 211, 273
Latinović, M., *130*, 236
Lau, C.C., *131*, 71
Laval, F., *130*, 185
Laval, J., *130*, 185
Lavin, M.F., *125*, 115
Laxminarayana, D., *138*, 55
Leal-Garza, C.H., *141*, 183
Leavitt, S., *126*, 159
Leblon, G., *125*, 33
Lecka-Czernik, B., *132*, 161
Lecointe, P., *129*, 299; *131*, 111
Lecorsier, A., *130*, 244
Lee, C.H., *129*, 215
Lee, M.L., *135*, 97
Lee, W.R., *134*, 61
Leenhouts, H.P., *129*, 345
Lefevre, P.A., *128*, 11
Le Francois-Chabas, D., *130*, 187
Legator, M.S., *128*, 105; *130*, 417; *135*, 225; *139*, 133
Leijdekkers, Ch.-M., *130*, 153
Lemelin, M., *130*, 262
Léonard, A., *127*, 65; *136*, 131; *137*, 79; *138*, 205
Léonard, E.D., *138*, 205
Leonardo, J.M., *126*, 1; *130*, 87
Leopardi, P., *130*, 246; *138*, 105
Lesca, P., *129*, 299
Levin, Ö., *135*, 149
Levis, A.G., *138*, 75, 185
Levy, S., *130*, 251; *138*, 63
Lewtas, J., *138*, 113
l'Hélias, C., *128*, 147
Li, A.P., *130*, 333
Li, Q.-g., *139*, 161
Lijinsky, W., *135*, 105
Lin, G., *138*, 157
Lin, M.S., *141*, 101
Ling, S.Y., *132*, 119
Linkous, S., *139*, 57
Linn, S., *132*, 51; *141*, 41
Linnainmaa, K., *130*, 249
Lipczynska-Kochany, E., *135*, 139
Lippens, R., *130*, 241
Littlefield, L.G., *127*, 73
Liu-Lee, V.W., *127*, 139; *132*, 73
Loch-Caruso, R., *131*, 147
Lochmann, E.-R., *130*, 250
Loeb, L.A., *131*, 97
Lohman, P.H.M., *125*, 153; *130*, 170; *132*, 41, 129
Lokesh, B.R., *135*, 199
Loper, J.C., *136*, 55
Loprieno, N., *130*, 221, 411; *133*, 199; *135*, 49
Loucheux-Lefebvre, M.H., *130*, 169
Loud, K., *140*, 215
Loukakou, B., *130*, 232; *136*, 23
Lowe, K.W., *139*, 57
Luccarini, G., *126*, 273
Lutzenberger, B., *130*, 175, 189
Lyon, M.F., *125*, 75

Ma, T.-H., *138*, 157
McCann, J., *134*, 1
McCartney, M., *139*, 115
McCormick, J.J., *125*, 95
McCoy, E.C., *127*, 185; *131*, 89; *139*, 115
McDonald, T., *130*, 236
McFall, T., *135*, 97
McFee, A.F., *139*, 57
McGregor, D.B., *135*, 49
MacGregor, J.T., *127*, 169; *130*; 159; *135*, 77
McKenna, P.G., *130*, 170
McKeown, C.K., *130*, 127
McLennan, A.G., *139*, 173
MacLeod, H., *127*, 39
McMurtrey, K.D., *140*, 7
MacPhee, D.G., *127*, 183; *131*, 193; *140*, 165; *141*, 83
Madle, S., *129*, 47
Maeda, M., *140*, 55
Mäki-Paakkanen, J., *130*, 249
Maenhaut-Michel, G., *130*, 166, 200
Magana-Schwencke, N., *130*, 200
Magdelenat, H., *130*, 206
Maher, V.M., *125*, 95
Maier, P., *130*, 187
Maizumi, H., *129*, 111; *139*, 193; *140*, 43, 205
Makino, K., *130*, 375
Makino, O., *130*, 367
Malaise, E.P., *131*, 61
Malaveille, Ch., *130*, 225, 239; *137*, 7
Malgieri, F., *130*, 184
Malling, H.V., *130*, 190
Mamber, S.W., *130*, 141
Mandel, R., *138*, 9
Mangir, M., *130*, 250
Manolache, M., *130*, 260
Marcos, R., *126*, 245; *130*, 256; *136*, 115; *138*, 169
Margolin, B.H., *130*, 11
Margot, A., *129*, 141; *130*, 179
Marklund, H., *137*, 71
Marnett, L.J., *129*, 39
Martin, B., *132*, 87
Martin, C.N., *137*, 39
Martin, L., *125*, 115
Martin, M., *126*, 169; *137*, 123
Martin, S.E., *126*, 19
Martino, R.M., *137*, 111
Maruyamam, H.B., *138*, 133
Masuda, T., *125*, 135

Mathews, L., *127*, 113; *135*, 11
Mathur, V., *139*, 123
Matijasevic, Z., *130*, 179, 223
Matos, E., *138*, 175
Matsuda, Y., *129*, 373
Matsui, N., *130*, 383
Matsuo, M., *130*, 368
Matsushima, T., *130*, 353, 363
Matsushita, H., *130*, 361, 364, 370, 373
Matter-Jaeger, I., *137*, 17
Mattern, I.E., *130*, 1, 170
Mattioli, M., *130*, 223
Matula, T.I., *138*, 153
Maurizot, J.C., *130*, 183
May, B., *130*, 251
Mayer, V.W., *141*, 15
Mayne, L.V., *131*, 187
Mazrooei, S., *135*, 181
Mazue, G., *130*, 261
Meechan, P.J., *141*, 69
Meffe, F., *129*, 397
Mehnert, K., *130*, 403
Mejean, V., *130*, 177
Menargues, A., *136*, 127
Menck, C.F.M., *130*, 171
Mendel, J., *126*, 259
Meneghini, R., *131*, 81
Menkveld, G.J., *130*, 197, 204, 208
Mercier, M., *125*, 23; *130*, 229; *136*, 23
Metalli, P., *130*, 247
Meuth, M., *126*, 107
Michaeli, I., *125*, 1
Michaelis, A., *140*, 99
Michaelson, D.S., *128*, 41
Mifuchi, I., *125*, 213
Migliore, L., *130*, 206
Milner, J.A., *126*, 19
Miltenburger, H.G., *130*, 308
Min, S., *130*, 238
Minamisako, K., *130*, 374
Minkler, J.L., *140*, 49
Minoda, Y., *130*, 384
Mitchell, A.D., *136*, 173
Mitchell, I.deG., *140*, 13
Mitchell, V.D., *136*, 33
Mitchell, W.M., *139*, 1
Mitelman, F., *129*, 71
Mittler, S., *139*, 119
Miyabe, M., *130*, 370
Miyao, K., *125*, 145
Miyashita, N., *130*, 373
Miyata, R., *130*, 386; *136*, 159
Mizuguchi, Y., *127*, 15
Mizusaki, S., *130*, 362, 377, 385
Mizusawa, H., *126*, 127
Mochizuki, H., *125*, 145; *130*, 371
Mochizuki, M., *130*, 381, 382
Moe, P.J., *130*, 251
Moens, W., *130*, 188
Mogi, M., *130*, 374; *137*, 103
Mohammed, K., *138*, 157
Mohn, G.R., *125*, 153; *130*, 174; *135*, 49; *141*, 11
Moldeus, P., *127*, 107; *130*, 35
Molnár, G., *127*, 175
Mondello, C., *139*, 67
Montagnier, L., *130*, 187
Montaldi, A., *138*, 75
Montes de Oca-Luna, R., *141*, 183
Montesano, R., *137*, 7
Moore, M.M., *140*, 215
Morganti, C., *130*, 246
Morigaki, T., *130*, 383
Morita, H., *130*, 371
Morita, K., *129*, 25
Moriwaki, K., *130*, 373
Moriya, M., *130*, 376, 380; *131*, 101
Morley, A.A., *140*, 223
Moron, J., *130*, 181, 195, 251; *136*, 49
Morris, S.M., *126*, 63
Morrison, W.D., *127*, 73
Morrow, J., *126*, 53
Mortelmans, K.E., *136*, 173
Mosesso, P., *130*, 252
Moss, S.H., *130*, 219
Moustacchi, E., *130*, 181, 200, 201, 251; *136*, 49; *138*, 63
Mrozik, H., *136*, 1
Mudry de Pargament, M., *138*, 87
Müller, Hj., *131*, 231
Müller, W.-U., *125*, 65
Muleris, M., *126*, 81, 93
Mullaart, E., *132*, 129
Mullenders, L.H.F., *127*, 155; *141*, 75
Mumma, R.O., *136*, 217
Muramatsu, M., *130*, 363
Murano, A., *130*, 364
Murao, S.-i., *130*, 127
Muraoka, N., *130*, 371
Murata, M., *130*, 361
Murota, T., *141*, 105
Murthy, D.K., *141*, 201
Murthy, M.S.S., *127*, 1
Myrnes, B., *131*, 183

Nagao, M., *129*, 19; *130*, 361, 384; *141*, 109
Nagayabu, O., *130*, 378
Nakadate, M., *136*, 159
Nakagawa, R., *130*, 367, 370
Nakai, K., *130*, 364
Nakai, S., *129*, 373
Nakama, A., *130*, 379
Nakamura, H., *130*, 372
Nakamura, N., *130*, 376; *131*, 101
Nakamura, S., *130*, 368, 372, 375
Nakamura, Y., *130*, 380
Nakao, T., *141*, 95
Nakasato, F., *141*, 109
Nakata, A., *130*, 375
Nakayasu, M., *141*, 109
Namiki, K., *130*, 235, 378
Namiki, M., *129*, 25; *130*, 235, 378
Nanni, N., *139*, 189
Nasim, A., *125*, 205
Natake, M., *130*, 375
Natarajan, A.T., *127*, 155; *128*, 31; *130*, 174; *135*, 49; *140*, 111; *141*, 75
Nau, K., *129*, 47
Neale, S., *130*, 219
Negishi, Ch., *126*, 239; *130*, 378; *140*, 55
Negishi, K., *130*, 376
Negishi, T., *135*, 87
Neis, J.M., *129*, 13
Nelson, R.L., *140*, 155
Nelson, S.D., *138*, 21
Nestmann, E.R., *131*, 197
Neudecker, T., *137*, 89
Neuhäuser-Klaus, A., *130*, 171
Newton, G.J., *130*, 333
N'Goy, K., *130*, 232; *136*, 23
Nichols, W.W., *129*, 77, 89
Nicoloff, H., *130*, 306; *140*, 99
Niebuhr, E., *125*, 263
Niemann, S.L., *127*, 93, 191
Nieri, R., *130*, 207, 227, 246, 247; *139*, 189; *141*, 19
Nikaido, O., *132*, 101
Nilsson, L., *135*, 149
Nishi, Y., *125*, 105; *130*, 372
Nishimura, S., *130*, 366
Nishimura, T., *130*, 364, 370, 373
Nishino, H., *130*, 373
Nishioka, H., *130*, 362; *141*, 135
Nishioka, K., *130*, 374
Nito, S., *130*, 373
Nix, C.E., *139*, 51
Noda, M., *130*, 383
Nohmi, T., *130*, 374; *136*, 159
Nord, C.-E., *135*, 149
Nordeen, S.K., *140*, 219
Nordenskjöld, M., *127*, 107; *130*, 235
Norman, A., *139*, 61
Norman, S.A., *129*, 89
Noro, T., *130*, 380
Norppa, H., *130*, 230, 249; *139*, 197
Norton, I.L., *139*, 107
Nowak, C., *140*, 111
Nunoshiba, T., *130*, 374; *141*, 135
Nuzzo, F., *139*, 67
Nygaard, R., *130*, 251
N'Zouzi, C., *130*, 232; *136*, 23

Obach, R., *136*, 127

Obaseiki-Ebor, E.E., *139*, 5
Obe, G., *128*, 59; *129*, 47; *138*, 71; *139*, 83; *140*, 111
Oberly, T.J., *125*, 291
Ochi, T., *130*, 374; *137*, 103
Ochiai, M., *129*, 19; *130*, 384
Oda, Y., *130*, 365, 368, 372, 375
Odagiri, Y., *130*, 375
Odin, F., *130*, 172
O'Donovan, M.R., *137*, 117
Önfelt, A., *125*, 269; *126*, 73; *130*, 121
Oesch, F., *130*, 226
Övervik, E., *135*, 149
Ohara, A., *130*, 375
Ohara, Y., *130*, 364
Ohe, T., *130*, 376
Ohkawa, Y., *130*, 372
Ohmann, J., *130*, 209
Ohmori, M., *139*, 193
Ohsawa, M., *130*, 374; *137*, 103
Ohshima, K., *130*, 385
Ohta, T., *130*, 376; *131*, 101
Oikawa, A., *129*, 63
Okada, M., *130*, 381, 382
Okado, N., *130*, 362
Oki, I., *130*, 372, 375
Olempska-Beer, Z., *129*, 259
Olesen, J., *129*, 153
Olive, P.L., *125*, 315
Olsson, K., *126*, 239
Olsson, U., *126*, 73; *130*, 121
Olthoff-Smit, F.P., *130*, 170
O'Neill, I.K., *130*, 239
O'Neill, J.P., *139*, 95; *140*, 21
Onfeld, A., *130*, 194
Oohara, K., *130*, 376
Orthen, E., *129*, 327
Orunesu, M., *131*, 215; *141*, 113
Osabe, M., *130*, 381
Osawa, T., *130*, 235, 378
Osborne, M.R., *135*, 31
Ose, Y., *129*, 33
Oshima, T., *130*, 382
Oshita, I., *130*, 371
Osterman-Golkar, S., *127*, 1
Oya, Y., *130*, 377
Oyama, K., *130*, 379

Pacchierotti, F., *130*, 247
Paes, D.J., *136*, 89
Pagano, G., *130*, 184
Painter, R.B., *139*, 123
Pairon, D., *136*, 23
Paixao, J.C., *130*, 171
Pal, B., *135*, 211
Pal, K., *129*, 365
Palitti, F., *126*, 251; *128*, 25, 153; *130*, 246, 252; *138*, 99
Pani, B., *140*, 175
Paoletti, A., *130*, 246, 248; *138*, 99, 105
Paoletti, C., *130*, 205
Paolini, M., *129*, 291; *130*, 207, 224, 227, 228, 246, 247; *139*, 189; *141*, 19
Papadopoulo, D., *130*, 193
Papworth, D., *126*, 189
Paquer, D., *130*, 260
Paravatou-Petsota, M., *126*, 81, 93
Pardee, A.B., *131*, 71
Parish, J.H., *125*, 43; *132*, 171
Parkes, D.J., *130*, 258
Parry, J.M., *130*, 197, 213, 313; *133*, 199, *135*, 51; *136*, 93
Partanen, P., *130*, 208
Paschin, Yu.V., *125*, 71; *137*, 57
Pascoe, S.A., *130*, 258
Paton, D., *128*, 11
Pavlov, Y.I., *140*, 75
Peak, M.J., *130*, 87
Pečevski, J., *130*, 245
Pedersen, F.S., *130*, 189
Pedersen, R.A., *126*, 153
Peiperl, M.D., *136*, 33
Pereira, M.A., *130*, 417
Pero, R.W., *129*, 71
Perticone, P., *128*, 153
Pet-Edwards, J., *127*, 185; *141*, 65
Petkau, A., *140*, 107
Petranović, D., *130*, 172
Petranović, M., *130*, 172
Petruzzelli, S., *139*, 9
Pfohl-Leszkowicz, A., *130*, 169
Pham, H.N., *136*, 185
Phillips, B.J., *126*, 265
Phillips, M., *135*, 175
Pincu, M., *139*, 61
Pinney, R.J., *139*, 101
Pinton, A.M., *138*, 185
Piperakis, S.M., *139*, 173
Pire, P., *128*, 181
Pitts, Jr., J.N., *140*, 81
Platonova, V.I., *127*, 149
Plesner, A.M., *125*, 263
Plewa, M.J., *136*, 233
Pluijmen, M., *137*, 7
Podger, D.M., *131*, 115; *140*, 87
Poirier, V., *130*, 181, 201
Poirot, O., *130*, 186
Poll, E.H.A., *132*, 181
Polverelli, M., *130*, 172
Poma, K., *130*, 202
Pomerantseva, M.D., *140*, 131; *141*, 195
Poncelet, F., *125*, 23; *136*, 23
Pons, F.-W., *125*, 153; *129*, 311
Pool, B.L., *140*, 147
Pope, S., *125*, 43
Posthumus, M.A., *130*, 241
Pottenger, L.H., *130*, 242
Potter, A.A., *131*, 197
Pouwels, P.H., *130*, 170
Pratap, R., *135*, 97
Preiss, A.M., *130*, 257
Prendergast, J.A., *125*, 205
Pretsch, W., *130*, 167
Prins, B., *130*, 231
Prival, M.J., *136*, 33
Probst, G.S., *125*, 291
Proust, J., *128*, 147
Przybojewska, B., *135*, 189
Pueyo, C., *130*, 212
Pylkkänen, L., *140*, 137

Qin, S., *141*, 189
Quillardet, Ph., *130*, 202, 220, 262; *132*, 141
Quinto, I., *130*, 181, 242; *136*, 49

Raaijmakers-Jansen Verplanke, C.A., *130*, 173
Rabache, M., *130*, 233
Radivojević, D., *130*, 245
Radman, M., *130*, 166
Rahimtula, A., *127*, 107
Rahman, Q., *141*, 1
Raj, A.S., *136*, 81, 247
Ramaija, L.R., *140*, 131
Ramanujam, V.M.S., *128*, 105
Ramdahl, Th., *130*, 231
Ramel, C., *130*, 188; *141*, 145
Ranc, Y., *130*, 172
Randazzo, R., *126*, 273
Rani, R., *141*, 55
Rankin, P.W., *131*, 37
Rannug, A., *130*, 188, 232; *135*, 21; *141*, 145
Rannug, U., *130*, 188, 232; *135*, 21; *137*, 71; *141*, 145
Rapić, V., *130*, 236
Raposa, T., *130*, 257
Rashid, K.A., *136*, 217
Rasmuson, Å., *141*, 29
Ray, J.H., *141*, 49
Recio, L., *136*, 201
Reddy, B.S., *127*, 113; *135*, 11
Rédei, G.P., *129*, 57
Reed, R.N., *137*, 111
Regan, T., *126*, 47
Reibelt, L.D., *139*, 143
Reichert, D., *137*, 89
Reichert, W., *139*, 87
Reischmann, B., *130*, 257
Remeuf, F., *130*, 238
Remondelli, P., *130*, 228
Remy, J., *126*, 169
Renault, G., *130*, 220

Renner, H.W., *130*, 173; *135*, 125; *140*, 127
Reynolds, P.R., *126*, 1
Rice, M., *131*, 27
Richardson, C.R., *130*, 250; *135*, 203; *141*, 59
Richold, M., *135*, 49
Ricordy, R., *130*, 246, 252; *138*, 99
Riedel, L., *138*, 71
Rieger, R., *140*, 99, 123
Rigaud, O., *130*, 206
Riley, S.E., *141*, 7
Ringrose, P.S., *135*, 199
Ripamonti, F., *130*, 255
Ripley, L.S., *129*, 149
Risko, K.J., *130*, 11
Risso, D., *130*, 27
Rizvi, R.Y., *141*, 1
Rizzi, R., *130*, 223
Robisch, G., *130*, 254
Robison, S.H., *131*, 173
Röhrborn, G., *130*, 260
Roelofs, H.M.J., *129*, 13
Roemer, K., *130*, 193
Rogan, E.G., *136*, 91
Rogers, S., *132*, 143
Rolandi, A., *135*, 193
Romano, L.J., *129*, 39
Rommelaere, J., *130*, 194
Roncero, M.I.G., *125*, 195
Ronen, A., *130*, 212
Roselli, L., *126*, 25
Rosenkranz, E.J., *131*, 89
Rosenkranz, H.S., *126*, 139, 227; *127*, 185; *130*, 389; *131*, 89; *139*, 115; *140*, 1; *141*, 65
Rosenstein, B.S., *139*, 35; *141*, 117
Rosin, M.P., *135*, 109
Rossi, C., *141*, 161
Rossi, G., *138*, 75
Rota, A., *130*, 184
Rowland, I.R., *126*, 121; *139*, 111
Royer, R., *130*, 262
Rueff, J., *130*, 213, 243
Ruhland, A., *133*, 51
Ruiz-Rubio, M., *130*, 212
Rumruen, K., *140*, 147
Rupert, C.S., *132*, 33; *140*, 199
Russell, L.B., *129*, 381; *134*, 143
Russo, A., *130*, 247
Russo, E., *140*, 175
Rutledge, J.C., *129*, 235
Ryser, H.J.-P., *138*, 9

Sabadie, N., *130*, 224
Sadowski, I., *130*, 97
Saffhill, R., *130*, 214
Sagliocco, F., *130*, 193
Saint-Ruf, G., *130*, 232; *136*, 23
Saitô, H., *140*, 55
Saito, Y., *130*, 385
Sakabe, Y., *130*, 370, 383
Sakaguchi, K., *129*, 181
Sakai, M., *130*, 377
Sakamoto, K., *130*, 378
Sakamoto, Y., *130*, 378
Salaj-Šmic, E., *130*, 172
Salazar, E.P., *130*, 321
Salemink, C.A., *128*, 147
Salles, B., *130*, 205; *131*, 53
Samelson, S.L., *140*, 155
Samoiloff, M.R., *140*, 103, 107
Sanderson, B.J.S., *140*, 223
Sandhu, S.S., *129*, 57; *136*, 173
Sankaranarayanan, K., *128*, 73
Sarasin, A., *129*, 141; *130*, 166, 179
Sargentini, N.J., *128*, 1
Sarginson, N.J., *130*, 259
Sarto, F., *138*, 185
Sasaki, M., *130*, 379
Sasaki, Y., *130*, 379
Sasaki, Y.F., *130*, 380
Satake, M., *131*, 11
Sato, K., *140*, 159
Sato, M., *130*, 363
Sato, S., *126*, 239; *130*, 378, 381; *140*, 55
Sato, T., *129*, 33
Savković, N., *130*, 245
Sawada, M., *130*, 380
Sawahata, T., *130*, 365
Sbrana, I., *130*, 221, 411
Schaefer, V.G., *140*, 219
Schawalder, H.P. *130*, 187
Scheel, I., *139*, 21; *141*, 15
Schendel, P.F., *125*, 1
Scherer, E., *130*, 208
Scheutwinkel-Reich, M., *130*, 256, 257; *139*, 199
Schimmer, O., *130*, 254
Schlegel, R., *127*, 169
Schmidt, J., *130*, 189
Schmitt, M., *130*, 203; *132*, 197
Schneider, O., *130*, 186
Schöneich, J., *130*, 190; *137*, 61
Schrotel, K.R., *130*, 283, 295
Schütz, S., *137*, 89
Schütze, S., *130*, 182, 250
Schulting, F.L., *130*, 216
Schwanitz, G., *130*, 193
Schwarz, H., *126*, 259
Sebti, S.M., *125*, 307
Sedgwick, S.G., *132*, 189
Sedliaková, M., *132*, 79
Sega, G.A., *134*, 113
Segerbäck, D., *127*, 1
Seidman, M., *126*, 127
Seiler, J.P., *130*, 174; *135*, 159
Sekiguchi, N., *130*, 382
Selby, P.B., *127*, 93, 191
Sen, P., *129*, 359
Setlow, J.K., *125*, 15
Shackleton, S., *141*, 89
Shaddock, J.G., *135*, 131
Shahin, M.M., *130*, 176; *135*, 49
Shamberger, R.J., *133*, 135
Sharief, Y., *126*, 159
Sharma, Ch., *127*, 113; *135*, 11
Sharma, R.K., *139*, 139
Sharp, D.C., *130*, 213
Shelby, M.D., *130*, 11; *134*, 143
Sheldon, T., *141*, 59
Shevchenko, L.P., *140*, 75
Shevchenko, V.A., *141*, 195
Shibata, T., *130*, 365, 367, 368
Shibuya, T., *141*, 105
Shimada, A., *125*, 221
Shimada, H., *139*, 183
Shimizu, H., *130*, 382
Shimizu, R.W., *130*, 333
Shimoi, K., *130*, 380
Shinagawa, H., *130*, 368, 372, 375; *131*, 11
Shiozaki, T., *130*, 364, 373
Shirasu, Y., *130*, 376, 380; *131*, 101
Shudo, K., *130*, 363
Shultz, L.D., *140*, 219
Siboulet, R., *125*, 275; *130*, 218
Sicard, N., *132*, 87
Siebel-Sauer, A., *130*, 257
Siebert, D., *133*, 199
Siede, W., *129*, 3
Silber, J.R., *131*, 1
Simi, L., *130*, 175
Simons, J.W.I.M., *125*, 283; *128*, 31; *130*, 182, 191, 214, 245, 343
Singh, I., *137*, 47
Singh, N.P., *128*, 17
Singletary, K.W., *126*, 19
Sjögren, B., *139*, 41
Skare, J.A., *130*, 283, 295
Skeggs, H.R., *136*, 1
Slezáriková, V., *132*, 79
Smith, D.M., *128*, 195
Smith, E.R., *130*, 417
Smith, J.G., *129*, 77
Smith, K.C., *128*, 1
Smolen, J.S., *128*, 167
Snee, R.D., *128*, 115
Snyder, R.D., *131*, 163
Snyder, S.W., *135*, 105
Sobels, F.H., *129*, 137; *130*, 425; *135*, 49
Søderlund, E.J., *126*, 205; *138*, 21
Sofuni, T., *127*, 129; *130*, 364, 380, 381; *140*, 27; *141*, 165
Sokolowska, D.M., *130*, 168

Soldatovic, B., *130*, 259
Solden, K.M., *139*, 51
Solleveld, H.A., *138*, 213
Sono, A., *129*, 181
Soper, C.J., *129*, 119; *130*, 204
Soper, K.A., *129*, 77, 89
Sora, S., *141*, 161
Sorsa, M., *130*, 208, 240, 249, 262; *138*, 197
Southworth, M.W., *140*, 67
Spahn, M.C., *140*, 33
Speit, G., *130*, 403
Sperlin, K., *131*, 137
Speichowicz, E., *136*, 169
Spodheim-Maurizot, M., *130*, 183
Springer, J., *134*, 143
Staab, R.J., *130*, 259
Stack, H.F., *134*, 89
Stadler, D., *127*, 39
Stafford, R.S., *133*, 87
Staiano, N., *130*, 228
Stan, H.J., *130*, 257
Stanton, C.A., *137*, 39; *141*, 7
Stella, M., *138*, 75
Sten, M., *130*, 199, 258; *139*, 71
Stetka Jr., D.G., *140*, 33
Stewart, J., *130*, 45; *138*, 93; *139*, 177
Stich, H.F., *129*, 129
Stolley, P.D., *129*, 77, 89
Streffer, C., *125*, 65
Stukalov, S.V., *127*, 149
Stumpf, R., *126*, 179
Styles, J.A., *130*, 250; *135*, 203
Su, Z.Z., *130*, 194
Subden, R.E., *141*, 23
Subhash, K., *138*, 47
Subramanyam, S., *138*, 55; *141*, 201
Suga, K., *130*, 379
Suga, M., *130*, 368
Sugawara, R., *129*, 63
Sugimura, T., *126*, 239; *129*, 19; *130*, 361, 378, *384*; *140*, 55; *141*, 109
Sugita, K., *130*, 375
Sugiyama, T., *139*, 203
Summer, K.-H., *130*, 209
Summerfield, F.W., *126*, 113
Sun, J.D., *130*, 333
Sundvall, A., *137*, 71
Suovaniemi, O., *130*, 208
Suter, W., *137*, 17
Sutou, S., *130*, 381
Suzuki, E., *130*, 381
Suzuki, H., *130*, 368
Suzuki, J., *130*, 382
Suzuki, K., *129*, 389; *141*, 35
Suzuki, M., *140*, 181
Suzuki, N., *125*, 55; *129*, 111; *139*, 193
Suzuki, S., *130*, 382
Suzuki, Y., *129*, 33; *130*, 382
Svensson, K., *127*, 1
Swenson, P.A., *139*, 107
Swietlinska, Z., *132*, 161
Swift, M., *140*, 219
Szentesi, I., *127*, 175

Tachibana, H., *130*, 382
Tada, M., *129*, 63
Takabayashi, T., *141*, 101
Takagaki, Y., *130*, 380
Takagi, Y., *130*, 361
Takahashi, K., *135*, 139
Takebe, H., *132*, 101
Takeda, K., *130*, 382
Takeda, Y., *130*, 366, 382
Takemoto, K., *130*, 375
Taketomi, M., *130*, 372
Takeuchi, T., *130*, 363
Takizawa, Y., *130*, 363, 383; *137*, 133
Tamura, T., *130*, 370
Tanabe, I., *130*, 383
Tanaka, K., *130*, 365
Tanaka, N., *130*, 365, 378
Tandon, R.K., *138*, 127
Tanzarella, C., *126*, 251; *128*, 25, 153; *130*, 246, 252
Tanzarella, G., *138*, 99
Tappel, A.L., *126*, 113
Tates, A.D., *130*, 182, 197, 204, 222, 309; *140*, 187
Tauc, M., *125*, 123
Tayama-Nawai, S., *141*, 95
Tazawa, J., *129*, 63
Tedjamulia, M., *135*, 97
Teel, R.W., *127*, 9
Telang, Sh., *130*, 53
Templeton, R.K., *140*, 215
Téoule, R., *130*, 172
Terada, M., *141*, 109
Teranishi, K., *136*, 119
Tezuka, H., *130*, 380
Thacker, J., *129*, 269
Theuws, J.L.G., *130*, 153
Thiel, C., *130*, 260
Thierry, D., *130*, 206
Thilly, W.G., *128*, 47, 221
Thomas, M.G., *141*, 59
Thomas, S.M., *131*, 193; *140*, 165
Thompson, E.D., *135*, 115
Thompson, L.H., *128*, 213; *130*, 321; *131*, 129, 209; *141*, 41
Thomson, E.J., *141*, 89
Thust, R., *126*, 259; *139*, 207
Thybaud-Lambay, V., *137*, 123
Tilch, C., *138*, 1
Tincknell, B.P., *140*, 209
Tobari, I., *129*, 373
Todd, N., *135*, 175
Tohda, H., *129*, 63
Tokiwa, H., *130*, 367, 370
Tominaga, Y., *135*, 97
Tomita, L., *130*, 380
Tonelli, F., *130*, 227
Tong, Ch., *130*, 53; *136*, 153
Tong-man Ong, *130*, 45, 79; *133*, 87; *138*, 93, 181; *139*, 177
Tonomura, A., *130*, 367, 377
Tonucci, D.A., *126*, 139
Toulme, J.J., *130*, 196
Trevisan, L., *138*, 75
Trgovčević. Ž., *130*, 172
Trousselier, A., *130*, 261
Truzman, C., *130*, 253
Tsoneva, M., *130*, 243
Tsuchiya, T., *130*, 267
Tsuda, M., *126*, 239; *130*, 378; *140*, 55
Tsuruta, S., *140*, 169
Tsushimoto, G., *130*, 361, 383
Tsutsui, T., *129*, 111; *139*, 193; *140*, 43, 205
Tucker, J.D., *138*, 93, 181
Tuominen, E., *130*, 208
Turc-Carel, C., *130*, 215
Tursi, F., *130*, 249
Turturro, A., *128*, 17
Tuschl, H., *128*, 167; *130*, 255
Tuveson, R.W., *126*, 1
Tweats, D.J., *130*, 258
Tyrrell, R.M., *129*, 103; *139*, 45
Tziolas, V., *130*, 243, 244

Uchida, A., *130*, 380
Ueda, N., *139*, 203
Ueno, Y., *125*, 135
Umeda, M., *130*, 371; *140*, 181
Umezawa, H., *130*, 363
Uozumi, M., *130*, 365, 368
Ura, T., *130*, 383
Utesch, D., *130*, 226
Utsugi, T., *129*, 373

Vachcova, R., *130*, 243
Vainio, H., *130*, 208, 307
Vaishampayam, A., *138*, 39
Valencia, R., *134*, 61
Vallès, J.M., *136*, 127
Vamvakinos, E., *130*, 184
Van Broekhoven, L.W., *130*, 391
Van Buul, P.P.W., *127*, 61, 65; *128*, 207; *129*, 231
Van Buul-Offers, S., *127*, 61
Vandecasteele, J.P., *125*, 123
Van de Merwe, W.P., *131*, 205
Vandenheuvel, W.J.A., *136*, 1
Van der Gen, A., *141*, 11

Van der Hoeven, J.C.M., *130*, 241, 391; *136*, 9; *138*, 219
Van der Laken, *130*, 208
Van der Schans, G.P., *132*, 41, 129
Van Gastel, A., *130*, 391
Van Gemert, P.J.L., *129*, 13
Vanhorick, M., *130*, 188
Van Houdt, J.J., *130*, 231
Van Kesteren, A.C., *141*, 75
Van Kesteren-van Leeuwen, A.C., *140*, 111
Van Larebeke, N., *130*, 241
Van 't Hof, J., *131*, 143
Van Veldhuizen, A., *130*, 241
Van Zeeland, A.A., *125*, 153; *127*, 155; *128*, 31; *130*, 173, 174, 191, 343; *141*, 75
Várkonyi, J., *130*, 257
Vaughan, V.L., *136*, 33
Velázquez, A., *136*, 115
Veleminský, J., *131*, 143; *139*, 25, 29; *140*, 123
Venegas, W., *130*, 211, 220, 273
Venitt, S., *135*, 31
Venkatrajam, M., *138*, 47
Ventura, A.M., *131*, 81
Verdier, J.M., *130*, 167
Vericat, J.A., *129*, 319; *132*, 15
Verschaeve, L., *136*, 131
Vig, B.K., *128*, 41
Vijayalaxmi, *125*, 87; *129*, 283
Vijg, J., *132*, 129
Vilkina, G.A., *141*, 195
Villani, G., *130*, 205
Visona, A., *139*, 143
Vleminckx, C., *130*, 188
Voci, A., *131*, 215; *141*, 113
Vogel, F., *139*, 87
Vogel, E.W., *125*, 229, 243; *128*, 31; *130*, 173, 226
Vogel, W., *130*, 245, 403
Volden, G., *131*, 183
Von Borstel, R.C., *133*, 199
Von der Hude, W., *139*, 199
Von Halle, E.S., *133*, 199; *134*, 61
Von Sprecken, R.S., *127*, 31
Vos, J.-M., *130*, 194
Voytek, P., *134*, 143

Waegemaekers, T.H.J.M., *137*, 95
Wagner, E.D., *136*, 233
Wagner, H., *129*, 195
Wahrendorf, J., *130*, 224
Wakabayashi, K., *126*, 239; *129*, 19; *130*, 361, 378, 384; *140*, 55
Waksvik, H., *130*, 250, 251
Walker, I.G., *139*, 155
Walters, J.M., *130*, 216
Walton, D.G., *129*, 129
Wan, A., *130*, 373
Wang, C.Y., *135*, 169
Ward, P., *130*, 170
Ward Jr., J.B., *130*, 417
Warring, R., *131*, 19
Washington, W.J., *129*, 235
Watabe, T., *130*, 374
Watanabe, M., *130*, 365, 374; *137*, 103
Waters, L.C., *139*, 51
Waters, M.D., *134*, 89, *136*, 173
Waters, R., *130*, 197, 205
Watts, J.P., *130*, 219
Webb, R.B., *137*, 1
Weber, W., *131*, 231
Wedd, D., *130*, 209
Weill, N., *130*, 260
Wells, R.L., *129*, 251
Wester, P.M., *130*, 214
Whong, W.-Z., *130*, 45, 79; *136*, 209; *139*, 177
Whorton, Jr., E.B., *130*, 417
Wiebel, F., *130*, 192
Wild, C.P., *130*, 214
Wildgoose, J., *141*, 59
Willems, M.I., *130*, 217, 222; *137*, 33
Williams, G.M., *130*, 53; *136*, 153
Williams-Hill, D.M., *129*, 153
Wilson, M.G., *141*, 101
Winckler, K., *129*, 47
Winquist, L., *141*, 145
Winterhoff, H., *130*, 193
Wislocki, P.G., *136*, 1
Wöhrmann, K., *129*, 327
Wolf, A., *128*, 167
Wolf, F.J., *136*, 1
Wolff, S., *129*, 207
Wolman, S.R., *129*, 77, 89
Woodruff, R.C., *134*, 61
Working, P.K., *141*, 123
Wottawa, A., *130*, 218, 236, 255
Würgler, F.E., *130*, 184, 198, 211; *134*, 61
Wulf, H.Ch., *125*, 263
Wunder, E., *130*, 257

Xamena, N., *126*, 245; *130*, 256; *136*, 115; *138*, 169
Xu, J., *130*, 79; *138*, 93

Yamagata, H., *130*, 384
Yamagiwa, J., *129*, 373
Yamaguchi, T., *130*, 384
Yamaha, T., *130*, 267
Yamamoto, K., *130*, 377; *131*, 11
Yamamoto, K.I., *128*, 173
Yamamoto, K.S., *130*, 378
Yamamoto, T., *130*, 372
Yamanaka, M., *130*, 378
Yamashita, Y., *130*, 376
Yanase, S., *130*, 383
Yarosh, D.B., *131*, 27, 45
Yasuda, K., *130*, 371
Yielding, K.L., *125*, 213; *126*, 145; *127*, 15
Yielding, L.W., *125*, 213; *127*, 15, 31
Yoo, Y.S., *130*, 369
Yoshida, D., *130*, 362, 377, 385
Yoshida, S., *141*, 95
Yoshida, Y.H., *130*, 385
Yoshikawa, I., *130*, 385
Yoshikawa, K., *130*, 374, 386; *136*, 159
Yu, Y.-n., *139*, 161

Zabala, C., *125*, 195
Zaborowska, D., *132*, 161
Zaccaria, G., *138*, 75
Zaccaro, L., *130*, 221, 411
Zahnd, J.P., *130*, 215
Zakour, R.A., *126*, 9
Zanacchi, P., *130*, 207; *133*, 161; *134*, 159; *139*, 9
Zbinden, G., *130*, 187
Zdzienicka, M.Z., *130*, 214, 245
Zech, L., *130*, 240
Zeiger, E., *130*, 11
Zelljadt, I., *136*, 137
Zetterberg, G., *133*, 199; *139*, 41
Zhu, N., *130*, 373
Ziegler-Skylakakis, K., *130*, 227
Zielenska, M., *130*, 245
Zielinska, B., *140*, 81
Zijlstra, J.A., *125*, 229, 243; *130*, 226
Zimmer, S.G., *127*, 23
Zimmering, S., *134*, 61
Zimmermann, F.K., *133*, 199; *139*, 21; *141*, 15
Zimonjic, D.B., *130*, 259
Zinkowski, R.P., *128*, 41
Ziolkowski, C.H.J., *131*, 45
Zownir, O., *126*, 53
Zucconi, D., *130*, 206
Zucker, C., *129*, 153
Zuk, J., *132*, 161
Zwanenburg, T.S.B., *127*, 155

Mutation Research, 125–141/INDEX (1984) 13–60
Elsevier

Cumulative Subject Index 1984

Volumes 125–141

Abortions, spontaneous, evaluation, population monitoring, *130*, 73
Acenaphthene, *134*, 78
Acephate, *133*, 211
Acetamide, *130*, 102; *133*, 10, 26, 33, 211; *134*, 5
1-(4-Acetaminophenyl)-3,3-dimethyltriazene, *133*, 211
2-Acetoaminofluorene, assay for gene mutation in human lymphoblast line AHH-1, *128*, 221
Acetohexamide, *133*, 30, 37
Acetone, *133*, 172, 177
–, in *S.cerevisiae*, aneuploidy, *141*, 15
–, triplet, inactivation of λ phage, abstract, *130*, 171
Acetophenone, *135*, 82
Acetophenones, in Salmonella, *135*, 77
Acetovanillone, Salmonella (SV50)/arabinose-resistant forward mutation, *130*, 81
N-Acetoxy-*N*-2-acetaminofluorene, *133*, 211
4-(*N*-Acetoxyacetamino)-*trans*-stilbene, *133*, 211
Acetoxyacetylaminofluorene, transfection of monkey kidney cells, abstract, *130*, 179
N-Acetoxy-2-acetylaminofluorene, *130*, 327; *133*, 100; *134*, 5
–, in diploid human fibroblasts, diphtheria toxin and thioguanine resistance, *125*, 95
–, DNA adducts, in *E.coli*, competitive ELISA procedure, *125*, 168
–, and ethylene oxide, human lymphocytes, *129*, 71
N-Acetoxy-*N*-2-acetylaminofluorene, in *E.coli*, *130*, 168
–, Salmonella, *131*, 89
–, survival of a plasmid, abstract, *130*, 180
–, *umuC* host cell, mutagenesis induced in pBR322, abstract, *130*, 167
N-Acetoxy-2-acetylamino-7-iodofluorene, *131*, 89
4-Acetoxyaminoquinoline-1-oxide, enzymatic methylation of DNA and poly(dG-dC)·poly(dG-dC), abstract, *130*, 169
p-Acetoxybenzyl chloride, Ames Salmonella plate-incorporation assay, *138*, 145
N-Acetoxy-2-fluorenyl acetamide, Salmonella, *130*, 81
1′-Acetoxysafrole, *133*, 211
2-Acetylaminofluorene, *125*, 296; *130*, 144; *131*, 104; *133*, 26, 33, 211; *134*, 5
–, Drosophila, *125*, 243
–, mouse germ cells, *126*, 279
–, mouse micronucleus test, pilot experiment, *141*, 167
–, rat hepatocytes, monolayer culture, *126*, 205
N-Acetyl-2-aminofluorene, metabolic activation of Drosophila fractions, *125*, 229
N-Acetyl-1-aminopyrene, activation by rat liver S9 and bacterial enzymes, *138*, 113
N-Acetylbenzidine, Ames assay, effect of acetyl-coenzyme A, *137*, 39
N-Acetyl-*p*-benzoquinone imine, *Salmonella typhimurium*, *138*, 21
Acetyl-coenzyme A, effect on mutagenicity of benzidines, Ames assay, *137*, 39
N-Acetyl-isoniazid, Salmonella, in vivo and in vitro biotransformation, *137*, 61
Acid Dye, *136*, 35
Acid Violet, 6B, *133*, 31, 38
Acridines, Ames reversion test and a bacterial DNA-repair test, *133*, 188
–, in DNA repair-proficient strain of *E.coli*, plate test, *131*, 193
–, frame-shift mutagenesis, in Salmonella strains, with and without plasmid pKM101, *141*, 83
–, metabolism by rat-liver enzymes, *140*, 7
–, photodynamic action, petite mutants, *125*, 213
Acridine Orange, *125*, 165, 296; *130*, 144; *131*, 104; *133*, 211
–, Drosophila, *126*, 245; *130*, 256
–, Drosophila *zeste* somatic eye mutation test, *138*, 169
–, in *E.coli* WP6, in the dark, *137*, 1
–, in yeast cells, petite mutants, *125*, 213
Acridine Yellow, *125*, 165
–, hydrochloride, *133*, 211
9-Acridone, metabolism of acridine by rat-liver enzymes, *140*, 7
Acriflavine, *125*, 294; *133*, 211
–, Drosophila, abstract, *130*, 256
–, Drosophila *zeste* somatic eye mutation test, *138*, 169
–, pretreatment of *E.coli* CM891 with ethylenediaminetetraacetate, *140*, 13
–, Salmonella, *131*, 193
–, in yeast cells, petite mutants, *125*, 213
Acriflavine·HCl, *133*, 171, 176
Acrylonitrile, *133*, 28, 35; *134*, 97, 104–106
–, activation to mutagens, possible contribution of reactive forms of O_2, abstract, *130*, 229
–, animal studies, *134*, 54
–, biotransformation, *134*, 54
–, carcinogenicity, *134*, 54
–, distribution and binding studies, *134*, 55
–, epidemiological studies, *134*, 54
–, *E. coli*, *134*, 52
–, genotoxic properties, *134*, 49

0027-5107/84/$03.00 © 1984 Elsevier Science Publishers B.V. (Biomedical Division)

Acrylonitrile, (*continued*)
–, higher plants, *134*, 52
–, insects, *134*, 53
–, mammalian systems, in vitro and in vivo, *134*, 53
–, microorganisms, *134*, 50
–, mutagenicity, *134*, 50
–, physical and chemical properties, *134*, 50
–, production, use and occurrence, *134*, 50
–, *S. cerevisiae*, *134*, 52
–, *S. typhimurium*, *134*, 50
–, strand breaks in SV_{40} phage DNA, *134*, 50
–, studies on reproduction, *134*, 53
–, yeast, *134*, 52
–, yeasts and HeLa cells, abstract, *130*, 223
Actidione, *133*, 100
Actinomycin D, *130*, 328; *133*, 26, 33, 100; *134*, 76
–, Salmonella (SV50)/arabinose-resistant forward mutation, *130*, 81
Adenosine kinase mutation, in baby hamster kidney cells, increased sensitivity to adenosine, *129*, 397
Adenosine triphosphate, *134*, 76
Adenovirus 2, UV-irradiated, heat-enhanced reactivation, *139*, 173
Adenovirus-5 DNA, methyl purines produced by MNNG, *131*, 45
ADP-ribosyl transferase, in CHO cells, inhibitors, *126*, 63
Adrenaline, Salmonella and *B.subtilis* strains, *137*, 17
Adriamycin, in Drosophila, *135*, 175
–, enhanced radiosensitivity, treated mouse stem cell spermatogonia, *128*, 207
–, SCE-inducing damage in vivo, abstract, *130*, 258
Aerosols, extracts, premutagenic, bioactivation by liver and lung homogenates, abstract, *130*, 231
–, outdoor, time- and location-dependent factors, abstract, *130*, 233
AF-2, *133*, 213
–, in burdock, desmutagenic factor, *129*, 25
–, in *E.coli*, effect of R-factor plasmid pKM101, *141*, 135
Aflatoxin, *133*, 31, 38; *134*, 74
–, mutagenicity, suppression by spermine, abstract, *130*, 362
Aflatoxin B_1, *129*, 303, 305; *130*, 54, 56–59, 102, 145, 327; *133*, 30, 37, 100, 173, 177, 211; *134*, 5, 102, 104–106
–, assay for gene mutation in human lymphoblast line AHH-1, *128*, 221
–, enzymatic characterization of polynuclear hydrocarbons activating rat-liver preparations, *125*, 123
–, membrane-mediated damage, abstract, *130*, 198
–, mouse lung fibroblast cultures, *132*, 197
–, sister-chromatid exchanges in mouse, single injection of BrdU in melted agar, *141*, 189
–, unscheduled DNA synthesis, Syrian hamster embryo cells, *129*, 111
Aflatoxin B_2, *133*, 11, 31, 38, 211
–, mouse lung fibroblast cultures, *132*, 197
–, Salmonella, *130*, 81
Aflatoxin G_1, *130*, 54, 56–59, 145; *133*, 30, 38, 100, 211
–, Salmonella, *130*, 81
Aflatoxin G_2, *133*, 11, 31, 38
Agar, amount and type, effects on number of spontaneous revertants, Ames test, *137*, 33
Age, and liquid holding, effects on UV-radiation sensitivities of wild-type and mutant *Caenorhabditis elegans* dauer larvae, *132*, 95
Air, abstracts of papers of EEMS 1983, *130*, 237
–, components, too volatile to be sampled by high-volume sampling with glass-fibre filters, abstract, *130*, 216
–, pollutants, *138*, 164
–, –, condensate, *138*, 165
–, –, simple in situ test system, *139*, 177
Airborne particles, extracts, carcinogenicity, abstract, *130*, 379
–, and vapours, in situ microbial test system for airborne workplace mutagens, *130*, 45
Airborne particulates, polynuclear aromatic hydrocarbon contents, Tokyo and Beijing, abstract, *130*, 373
Alachlor, *133*, 211; *136*, 234
Alcohol, and formaldehyde exposure in autopsy service workers, *130*, 417
Aldehydes, unsaturated, reactions with saturated aldehydes and aminoacids, abstract, *130*, 384
Alderlin, *133*, 26, 33
Aldicarb, cultured human lymphocytes, *138*, 175
Aldrin, *133*, 211
Alerest, *138*, 162
Alga, blue-green, nitrogen-fixing, *Nostoc muscorum*, bipyridylium herbicide mutagenicity, *138*, 39
Alicycles, and aliphatics, miscellaneous, Ames reversion test and a bacterial DNA-repair test, *133*, 190
Alimentary tract, congenital anomalies, estimates of detriment, *128*, 88
Aliphatics, and alicycles, miscellaneous, Ames reversion test and a bacterial DNA-repair test, *133*, 190
Aliphatic acrylate esters, Salmonella, *137*, 95
Aliphatic halogenated hydrocarbons, production of volatile Salmonella mutagens, *136*, 55
Alipur, *133*, 211
Alkali-labile sites, occurrence and loss, in newly synthesized DNA of UV-irradiated *E.coli*, *132*, 79
Alkaline elution assay, damage in mammalian tissues, abstract, *130*, 362
–, of rat testicular DNA, cross-links, *130*, 295
–, –, strand breaks, *130*, 283
Alkylating agents, relationship between functionality and genetic toxicology of DNA-damaging agents, *133*, 58, 66, 72
–, in V79 Chinese hamster cells, negative evidence for adaptive response to mutagenic effects, *129*, 243
Alkylation, damage, role of DNA repair, V79/79 cell line, abstract, *130*, 192
–, mutagenesis, mechanism, model, *125*, 1
O^6-Alkylguanine, demethylation, rat hepatoma cells, abstract, *130*, 192
Allantoin, Salmonella, *135*, 105
Allium cepa, contraceptives, cytological effects, *135*, 181
–, root-tip cells, caffeine and pyronin Y. *127*, 119
Allium sativum, garlic, in mouse, *136*, 85
Alloxan, *133*, 100
Allyl chloride, *133*, 28, 35, 211
–, *A.nidulans*, somatic segregation, *138*, 33
N-Allyl-*N*-nitrosourea, *133*, 212
α-Amanitin, *134*, 81

Amaranth, *133*, 212; *134*, 5
Amethopterin, *133*, 100
Amikacin, *133*, 212
Amine, drugs, and their products of nitrosation, Salmonella, *135*, 105
Amines, aromatic and heterocyclic, and derivatives, Ames reversion test and a bacterial DNA-repair test, *133*, 187
5-Aminoacridine, *133*, 212
9-Aminoacridine, *125*, 294; *130*, 102, 144
–, Chinese hamster cells, sister-chromatid exchanges, *137*, 117
–, clear-plaque mutations in bacteriophage lambda, *129*, 311
–, hydrochloride, *131*, 104
–, pretreatment of *E.coli*, CM891 with ethylenediaminetetraacetate, *140*, 13
–, RK test, validation, *130*, 107
–, in Salmonella, *131*, 193
–, –, SOS functions, *131*, 115
1-Aminoanthracene, *133*, 170, 175
2-Aminoanthracene, *125*, 297; *130*, 144; *133*, 170, 175; *135*, 91
–, burdock, *129*, 25
–, Chinese hamster primary lung cell cultures, *130*, 333
–, mouse lung fibroblast cultures, *132*, 197
–, in Salmonella, and desmutagenic substance in water extract of grass-wrack pondweed, *129*, 33
–, in situ microbial test system for airborne workplace mutagens, *130*, 45
2-Amino-9,10-anthracenedione, *133*, 29, 35
Aminoantipyrine, *133*, 171, 176; *134*, 160
3-Amino-8-azido-5-(diethylmethylaminopropyl)-6-phenylphenanthridinium chloride, *127*, 34
3-Amino-8-azido-5-ethyl-6-phenylphenanthridinium chloride, *127*, 34
Aminoazobenzene, in human fibroblasts, *127*, 110
4-Aminoazobenzene, *130*, 54, 56, 58, 59; *133*, 26, 33, 212; *134*, 5
o-Aminoazobenzene, *134*, 5
o-Aminoazotoluene, *130*, 145; *134*, 5
–, rat and hamster assays, *136*, 258
4′-Amino-2,3-azotoluene, *133*, 100
3-Aminobenzamide, and bromo- or chlorodeoxyuridine, in CHO cells, *127*, 155
–, Chinese hamster cells, interference with pathways of purine biosynthesis, *131*, 123
–, in G_2, and aberrations in human lymphocytes, *126*, 251
–, poly(ADP-ribose) metabolism, in Chinese hamster ovary cell EM9, *128*, 213
–, in Syrian baby hamster kidney cells, *131*, 71
2-Aminobiphenyl, *133*, 212; *134*, 104
–, Tradescantia micronucleus test, *138*, 160
4-Aminobiphenyl, *125*, 297; *133*, 212; *134*, 5, 101, 104–106
–, and benzidine, metabolic activation, *129*, 13
–, liver, kidney and small-intestine microsomal-mediated mutagenicity, *125*, 23
4-Amino-1,1′-biphenyl, *133*, 28, 35
N^4-Aminocytidine, in Salmonella, abstract, *130*, 376, 377
Aminodeoxykanamycin, *133*, 212
2-Amino-3,8-dimethylimidazo[4,5-*f*]quinoxaline, formation by heating creatinine, glycine and glucose, *126*, 239
2-Amino-3,8-dimethylimidazo[4,5-*f*]quinoxaline, heating a mixture of creatinine, glucose and glycine, abstract, *130*, 379
3-Amino-1,4-dimethyl-5*H*-pyrido[4,3-*b*]indole, adult rat hepatocytes, *137*, 123
–, in burdock, desmutagenic factor, *129*, 25
3-Amino-1,4-dimethyl-5*H*-pyrido[4,3-*b*]indole · AcOH, *133*, 171, 175
p-Amino-diphenylamine hydrochloride, *133*, 100
N-(3-Amino-4-ethoxyphenyl)acetamide, *133*, 32, 39
β-Aminoethylisothiouronium bromide hydrobromide, in human lymphocyte cultures, rat liver S9, *129*, 195
Aminofluorene derivatives, comparative mutagenicity, Salmonella, *131*, 89
2-Aminofluorene, *130*, 144; *131*, 104; *133*, 171, 175; *134*, 5
–, Drosophila, *125*, 243
–, liver, kidney and small-intestine microsomal-mediated mutagenicity, *125*, 23
–, metabolic activation by S12 preparations of human lung, *139*, 9
–, Salmonella and yeast tests, S9 liver preparations from mouse and chicken, *140*, 75
3-Aminoharman, antagonizing effect on induction of sister-chromatid exchanges, *129*, 63
2-Amino-N^6-hydroxyadenine, *133*, 100
(2-(((Aminoiminomethyl)thio)methyl)-4-bromophenoxy)acetic acid, *133*, 212
3-(((Aminoiminomethyl)thio)methyl)-4-butoxybenzeneacetic acid methyl ester monohydrochloride, *133*, 212
(2-(((Aminoiminomethyl)thio)methyl)-4-chlorophenoxy)acetic acid, *133*, 212
3-(((Aminoiminomethyl)thio)methyl)-4-ethoxybenzeneacetic acid methyl ester monohydrochloride, *133*, 212
3-(((Aminoiminomethyl)thio)methyl)-4-methoxybenzeneacetic acid methyl ester hydrochloride, *133*, 212
3-(((Aminoiminomethyl)thio)methyl)-4-propoxybenzeneacetic acid methyl ester monohydrochloride, *133*, 212
5-Amino-10-methylacridinium chloride, *133*, 212
2-Amino-3-methylimidazo[4,5-*f*]quinoline, heating a mixture of amino acids and creatine, abstract, *130*, 385
–, mouse bone marrow, *140*, 49
3-Amino-1-methyl-5*H*-pyrido[4,3-*b*]indole, *130*, 327
–, adult rat hepatocytes, *137*, 123
–, desmutagenic factor, *129*, 25
–, mouse bone marrow, *140*, 49
3-Amino-1-methyl-5*H*-pyrido[4,3-*b*]indole · AcOH, *133*, 171, 176
2-Amino-4-(5-nitro-2-furyl)thiazole, mutagenicity of urine of various species, *135*, 169
5-Amino-3-(2-(5-nitro-2-furyl)-vinyl)-1,2,4-oxidiazole, *trans*, *133*, 100, 212
2-Amino-4-nitrophenol, *133*, 100
2-Amino-5-nitrophenol, *133*, 100
4-Amino-2-nitrophenol, *133*, 29, 36
Aminopentylaminoethylthiophosphate, protection against radiation in male mouse, *140*, 131
m-Aminophenol, *133*, 100
o-Aminophenol, *133*, 170, 175; *134*, 160
p-Aminophenol, *125*, 294; *130*, 144; *133*, 170, 175; *134*, 160

Aminopropylaminothiophosphate, protection against radiation in male mouse, *140*, 131
Aminopterin, *133*, 100, 213
–, media containing, HGPRT revertants, V79 cell clones, *126*, 273
2-Aminopurine, *133*, 100, 213
–, pretreatment of *E.coli* CM891 with ethylenediaminetetraacetate, *140*, 13
1-Aminopyrene, activation by rat liver S9 and bacterial enzymes, *138*, 113
Aminopyrine, *133*, 171, 176; *134*, 160
–, *N*-demethylase, influence of NADPH-generating system on microsomal mono-oxygenase stability, *129*, 291
–, mixed-function oxidase activities in adult Drosophila, *139*, 51
8-Aminoquinoline, *133*, 213
4-Aminoquinoline-*N*-oxide, *133*, 171, 176
2-Amino-1,3,4-thiadiazole, *134*, 75, 79
3-Amino-1,2,4-triazole, *130*, 102; *133*, 102, 212, *134*, 5
2-Amino-3,7,8-trimethylimidazo[4,5-*f*]quinoxaline, heating a mixture of creatinine, glucose and glycine, *140*, 55
Aminozide, *133*, 11, 31, 38
Amitrole, *130*, 102, 145; *133*, 10, 18, 19, 27, 33; *134*, 77
–, Syrian hamster embryo cells in culture, *140*, 205
Ammonium bromide, *138*, 161
Ammonium chromate, *133*, 174, 179
Amphetamine sulphate, *134*, 77
Amphyl disinfectant, *130*, 102
Ampicillin, *133*, 173, 177
Amsacrina, CFW mouse, in vivo and in vitro cytogenetic effects, *138*, 87
Anacin, *138*, 162
Anaemia, Fanconi, clinical and cellular response on cytostatic treatment, abstract, *130*, 257
–, –, fibroblasts, host-cell reactivation of *cis*-diammine-dichloroplatinum(II)-treated SV40 DNA, *132*, 181
Anaerobiosis, petite mutants by photodynamic action of acridine compounds, *125*, 213
Anagasta kuhniella, radiosensitivity, *127*, 49
Anaphase test, abstract, *130*, 189
Aneuploidy, in mammalian cells, measurement by modified hypotonic treatment, *139*, 127
–, oncodazole and acetone in *S.cerevisiae, 141*, 15
Angelicin, *133*, 213
Anilazine, *133*, 28, 35
Aniline, *130*, 144, *133*, 27, 34, 170, 175, 213; *134*, 5, 160
–, hydrochloride, *133*, 29, 36
–, influence on benzene clastogenicity, mouse, *128*, 105
–, plus derivatives, in *S.typhimurium* and *B.subtilis, 136*, 159
Anilinoacridines, frame-shift mutagenesis, in Salmonella strains, with and without plasmid pKM101, *141*, 83
9-Anilinoacridines, antimitochondrial effects, *S.cerevisiae, 136*, 223
Animal, studies, acrylonitrile, *134*, 54
o-Anisidine, *134*, 5
p-Anisidine, *134*, 5
p-Anisidine hydrochloride, *133*, 11, 32, 39
Anovlar, *Allium cepa, 135*, 181
Anthracene, *130*, 144; *133*, 170, 175, 213
Anthramine, *133*, 213; *138*, 160
Anthramycin, *133*, 213
Anthranilic acid, *133*, 29, 36
Antibiotics, medium lacking foetal calf serum and, cultured human lymphocytes, *129*, 207
Anticlastogens, in human lymphocyte cultures, rat liver S9 mix, *129*, 195
Antihistamines, related to methapyriline, rat hepatocytes, *135*, 131
Antioxidant, ethoxyquin, in mammals, antimutagenic effects, *135*, 125
Aphidicolin, isolation and characterization of mutator mutants from cultured mouse FM3A cells, *129*, 389
–, and UV, in human skin fibroblasts, *131*, 187
Apholate, in male albino rat lymphocytes, *141*, 175
Apigenin, *135*, 81
Apomorphine, Salmonella and *B.subtilis* strains, *137*, 17
Apurinic sites, cause of mutations in Simian virus 40, *129*, 141
Aquilide A, isolated from bracken fern, abstract, *130*, 241
Arabidopsis, ascorbic acid, *129*, 57
Arabidopsis thaliana, dimethylnitrosamine and diethyldithiocarbamate and carbon monoxide, *139*, 29
1-β-D-Arabinofuranosylcytosine, *133*, 173, 177; *134*, 161
–, demonstration of UV-type and ionizing radiation-type DNA repair, nucleoid sedimentation technique, *131*, 137
–, mouse bone marrow, *127*, 129
–, mouse micronucleus test, pilot experiment, *141*, 167
–, and very low doses of X-rays, in human lymphocytes, during G_2, *141*, 45
1-β-D-Arabinofuranosylcytosine/hydroxyurea, and UV, in human skin fibroblasts, *131*, 187
Arabinose, resistant forward mutation assay system, 26 compounds, Salmonella SV50, validation, *130*, 79
1-β-D-Arabinosylcytosine, liquid-holding experiments with human peripheral lymphocytes, *128*, 59
Arachidonic acid, and aromatic amines, in human fibroblasts, *127*, 107
Arctium lappa, desmutagenic factor, 129, 25
Areca catechu, phenolics, influence of pH on convertogenic activity, *135*, 109
Aretit, *133*, 213
Aroclor, induction, in vitro, effect of Trp-P-1 and Trp-P-2 in rat hepatocytes, *137*, 123
Aroclor, 1254, *129*, 303, 304; *134*, 5
–, in benzene-treated mouse, *135*, 225
–, and carcinogenic aromatic amines, in Salmonella, *125*, 23
–, and cyclophosphamide, several test systems, *129*, 47
–, enzymatic characterization of polynuclear aromatic hydrocarbons activating rat-liver preparations, *125*, 123
Aromatic amines, carcinogenic, liver, kidney and small-intestine microsomal-mediated mutagenicity, *125*, 23
–, in cultured human fibroblasts, metabolic activation of prostaglandin synthase, *127*, 107
–, and polycyclic hydrocarbons, metabolic activation of Drosophila fractions, *125*, 229
–, Salmonella, *136*, 33
–, structure–activity relationship, abstract, *130*, 365

Aromatic glycidyl compounds, mono- and difunctional, *135*, 159
Aromatic and heterocyclic amines and derivatives, Ames reversion test and a bacterial DNA-repair test, *133*, 187
Aromatic sulphur heterocycles, methyl-substituted tri- and tetracyclic, Salmonella, *135*, 97
Aromatics, miscellaneous, Ames reversion test and a bacterial DNA-repair test, *133*, 190
–, simple, influence on benzene clastogenicity, *128*, 105
Arsenic, *134*, 98, 106
–, and caffeine, no synergism, mouse bone marrow cells and spermatogonia, abstract, *130*, 202
–, compounds, *134*, 104, 105
–, dimethyldithiocarbamate, *133*, 31, 38
–, pentoxide, *133*, 31, 38
–, trichloride, *133*, 31, 39
Arsenous oxide, *133*, 31, 38
Asafoetida, in mouse, *136*, 85
Asbestos, *133*, 11, 31, 38; *134*, 5, 99
Ascorbate, Arabidopsis, *129*, 57
Ascorbic acid, *130*, 328; *133*, 172, 177; *138*, 162
–, anti-carcinogenic effects, *133*, 146
–, antimutagenic effect, *133*, 141
–, –, in mammalian cells, *133*, 143
–, Arabidopsis, *129*, 57
–, chemotherapeutic effect in animals, *133*, 150
–, effect on bacteria, *133*, 138
–, – on cell transformation, *133*, 145
–, – on Drosophila, *133*, 139
–, – on mammalian cells, *133*, 139
–, – in man, *133*, 152
–, – on nucleic acids, *133*, 135
–, epidemiological relationships, *133*, 153
–, genetic toxicology, *133*, 135
–, –, effect on phage transformation, *133*, 136
–, preferential toxicity on cancer cells, *133*, 147
–, preventive effects, in animals, *133*, 148
–, tumour-enhancing effect, *133*, 145
Aspartic acid, Salmonella, *136*, 217
Aspergillus nidulans, carbon tetrachloride and lipoperoxide, *136*, 109
–, ethyl alcohol, *135*, 53
–, somatic segregation by halogenated aliphatic hydrocarbons, *138*, 33
Aspirin, *138*, 162
–, bacterial systems, *138*, 133
Aspirin (York), *138*, 162
Aspon, *133*, 213
Ataxia telangiectasia, evaluations of wasted mouse fibroblasts and SV-40 transformed human fibroblasts as models, in vitro, *140*, 219
–, ionizing radiation, cell cycle progression, *125*, 115
–, lymphoblastoid cell lines, gene dosage and complementation analysis, *129*, 165
Atmospheric, particles, in Paris, genotoxicity, abstract, *130*, 238
Atrazine, *133*, 102, 213; *134*, 79; *136*, 234
Auramine, *133*, 31, 38, 213; *134*, 5, 101, 104–106
Auramine O, *130*, 102
5-Azacytidine, in *S.cerevisiae, 139*, 21
5-Azacytosine, effects in DNA on enzymic uracil excision, *140*, 93
8-Azaguanine, *133*, 102
Azaserine, *131*, 104; 133, 28, 35
–, DNA damage in *E. coli, 129*, 153
–, media containing, selection of HGPRT revertants, V79 cell clones, *126*, 273
Azathioprine, *133*, 102; *134*, 79
3-Azido-8-amino-5-ethyl-6-phenylphenanthridinium chloride, *127*, 34
Azido analogue, of propidium iodide, Salmonella, *127*, 31
3-Azido-10-methylacridinium chloride, in yeast cells, petite mutants, *125*, 213
Azinphos-methyl, *133*, 10, 27, 34, 213; *134*, 5
Aziridine, in *Pleurodeles waltl, 125*, 275
Azobenzene, *133*, 28, 35; *134*, 5
Azodrin-5, *133*, 228
Azo dyes, and azo reduction products, rat and hamster assays, *136*, 255
–, benzidine-congener-derived, rat hepatocytes, *136*, 147

Bacillus subtilis, effects of 5-azacytosine in DNA on enzymic uracil excision, *140*, 93
–, non-steroidal anti-inflammatory drugs, *138*, 133
–, phenylhydroxylamine derivatives, *136*, 159
–, Rec assay, apomorphine and various catecholamines, *137*, 17
Bacillus thuringiensis (crude) exotoxin, *133*, 213
Bacteria, antimutagenic effects of ascorbic acid, *133*, 141
–, cellular metabolism, abstracts of papers of EEMS 1983, *130*, 186
–, effect of ascorbic acid, *133*, 138
Bacteriophage, lambda, clear-plaque mutations by 9-aminoacridine, *129*, 311
–, λ15, lack of non-targeted mutations by UVB, UVA and visible irradiation of host cells, *139*, 45
–, ΦX174, double-stranded DNA, UV-irradiated, excision repair and Weigle reactivation, *131*, 1
– T4, particles, refractoriness to bisulphite mutagenesis, *129*, 149
Baicalein, *135*, 81
Bamboo shoots, adsorption of pyrolysate mutagens by, *141*, 150
Barbital, lack of effect of self-poisoning on subsequent reproductive outcome, *127*, 175
Basagran, *133*, 213
Bavistin, *133*, 213
Baygon, *133*, 213
Beans, fava, incubation with nitrite, intercultivar difference with respect to mutagenicity, *130*, 391
Beef, broth, mutagens in canned foods, *141*, 131
–, ground, cooked, activation of mutagens by human liver microsomes, *140*, 61
Belgium, Local Activity Report 1983 EEMS councillors, *130*, 305
Benomyl, *133*, 213

Benz[*c*]acridine, active metabolites, role of co-substrates in activation, abstract, *130*, 234
Benzaldehyde, *133*, 102
Benzamide, DNA-strand breaks associated with halogenated pyrimidine incorporation, *131*, 129
–, inhibitors of ADP-ribosyl transferase in Chinese hamster ovary cells, *126*, 63
1,2-Benzanthracene, *138*, 160
Benz[*a*]anthracene, *130*, 54, 57–59; *133*, 26, 33, 170, 175, 213; *134*, 5
–, Drosophila, *125*, 243
–, presence in creosote P1, *130*, 153
Benzenamine, 2-methoxy-hydrochloride, *133*, 36
Benzene, *125*, 298; *129*, 304; *133*, 27, 34, 172, 177; *134*, 5, 100
–, clastogenicity, influence of simple aromatics, *128*, 105
–, cytogenetic effects, rat exposed to vapour, *135*, 203
–, in mouse, modifications in myeloclastogenic effect with toluene, phenobarbital, 3-methylcholanthrene, Aroclor 1254 and SKF-525A, *135*, 225
α-Benzene hexachloride, *133*, 213
Benzetonium chloride, *133*, 172, 177; *134*, 161
Benzidine, *125*, 297; *133*, 28, 35; *134*, 5, 101, 104–106
–, activation to mutagenic species, dependency on hydrogen peroxide, *141*, 23
–, and 4-aminobiphenyl, metabolic activation, *129*, 13
–, and benzidine-congener dyes, and selected monoazo dyes, Salmonella, modified, *136*, 33
–, congener-derived azo dyes, rat hepatocytes, *136*, 147
–, dihydrochloride, *136*, 35
–, rat and hamster assays, *136*, 258
–, structure–activity relationship, abstract, *130*, 365
Benzidine · 2HCl, *133*, 170, 175; *138*, 160
Benzidines, Ames assay, effect of acetyl-coenzyme A, *137*, 39
Benzohydroxamic acid, *135*, 140
Benzoic acid, *133*, 214
Benzonaphthothiophenes, Salmonella, *135*, 97
Benzo[*a*]pyrene, *129*, 303, 305; *130*; 54, 57–59, 144, 327; *133*, 21, 26, 33, 170, 175, 214; *134*, 5, 76, 157; *135*, 91; *138*, 160
–, assay for gene mutation in human lymphoblast line AHH-1, *128*, 221
–, in Chinese hamster ovary cells, transient DNA lesions, *140*, 141
–, Chinese hamster primary lung cell cultures, *130*, 333
–, coated alumina particles, factors of influence, abstract, *130*, 236
–, Drosophila, *125*, 243
–, enzymatic characterization of polynuclear hydrocarbons activating rat-liver preparations, *125*, 123
–, *E.coli* K-12 343/113, microbial mutagenicity assays, *130*, 87
–, human epithelial teratoma cells, HGPRT locus, *130*, 127
–, human faecal fractions and nuclear damage in colonic epithelial mouse cells, *141*, 35
–, human whole blood cultures and purified lymphocyte cultures, *130*, 403
–, incorporation in liposomes, SCE assay, *139*, 207
–, metabolic activation, of Drosophila fractions, *125*, 229
–, –, by preparations of human lung, *139*, 9
–, metabolites, C57 and DBA mice strains, abstract, *130*, 224
Benzo[*a*]pyrene, (*continued*)
–, metabolites–DNA adducts, in cultured normal human fibroblasts, *131*, 157
–, mixed-function oxidase activities in adult Drosophila, *139*, 51
–, mouse germ cells, *126*, 279
–, mouse lung fibroblast cultures, *132*, 197
–, mouse micronucleus test, pilot experiment, *141*, 167
–, in *Pleurodeles waltl*, *125*, 275
–, presence in creosote P1, *130*, 153
–, pretreatment of *E.coli* CM891 with ethylenediaminetetraacetate, *140*, 13
–, Salmonella, *130*, 81
–, – and desmutagenic substance in water extract of grasswrack pondweed, *129*, 33
–, –, and yeast tests, S9 liver preparations from mouse and chicken, *140*, 75
–, and selenium, in Salmonella, *127*, 9
–, sister-chromatid exchanges in mouse, single injection of BrdU in melted agar, *141*, 189
–, unscheduled DNA synthesis, Syrian hamster embryo cells, *129*, 111
–, V79 cells, S9-mediated binding to DNA, *125*, 307
–, V79/HGPRT system, and bioantioxidants, *137*, 57
Benzo[*a*]pyrene-7,8-dihydrodiol-9,10-oxide, localized adducts, survival of bacterial plasmids, *126*, 127
Benzo[*a*]pyrene hydroxylase, enzymatic characterization of polynuclear hydrocarbons activating rat-liver preparations, *125*, 123
Benzo[*a*]pyrene 4,5-oxide, *133*, 214
–, hydrolase, enzymatic characterization of polynuclear hydrocarbons activating rat-liver preparations, *125*, 123
Benzo[*e*]pyrene, *130*, 57, 59; *133*, 11, 29, 36, 170, 175, 214; *134*, 5
–, human epithelial teratoma cells, HGPRT locus, *130*, 127
–, human hepatoma cell-mediated assay, *136*, 65
–, mouse lung fibroblast cultures, *132*, 197
–, Salmonella, *135*, 21
Benzopurpurine-4B, *136*, 35
p-Benzoquinone dioxime, *133*, 28, 35
1,2,3-Benzotriazole, *133*, 10, 28, 35
Benzoyl peroxide, *133*, 172, 177; *134*, 161
Benzphetamine, enzymatic characterization of polynuclear hydrocarbons activating rat-liver preparations, *125*, 123
–, mixed-function oxidase activities in adult Drosophila, *139*, 51
Benzthiazuron, *133*, 214
Benzylamine, and dimethylnitrosamine, in *A.thaliana*, *139*, 29
Benzyl chloride, *130*, 327; *133*, 28, 35, 214
Benzyl, derivatives, *p*-substituted, Ames Salmonella plate-incorporation assay, *138*, 145
N-Benzyl-2-*trans*-((5-nitro-2-furyl)-vinyl)-imidazole, *133*, 102
Beryllium, chloride, *133*, 11, 31, 39
–, compounds, *lacI* gene of *E.coli*, *126*, 9
–, sulphate, *133*, 32, 39, 214; *134*, 5
–, –, tetrahydrate, *133*, 11, 31, 39
Betanal, *133*, 214
Betel, chewers, siter-chromatid exchanges, *139*, 79
Betel nut, phenolics, influence of pH on convertogenic activity, *135*, 109

BHT, *133*, 10, 29, 36
Bidrin, *133*, 214
Bifenox, *136*, 234
Bile, and perfusate from rat liver, perfused with 1,1-dimethylhydrazine, influence of dietary selenium, *130*, 121
Bioallethrin, *133*, 214
Bioantioxidants, and benzo[*a*]pyrene, in V79/HGPRT system, *137*, 57
Biochemical induction assay, utility, abstract, *130*, 383
Biopterin, direct or indirect action, Drosophila, *128*, 147
Bioresmethrin, in Salmonella and V79 cells, *137*, 7
Biotin, *130*, 103; *138*, 162
Biphenyl, *133*, 214
Bipyridylium herbicide, in nitrogen-fixing blue-green alga *Nostoc muscorum*, *138*, 39
4,4′-Bis(4-anilino-6-morpholino-1,3,5-triazin-2-γ-yl)amino)stilbene-2,2′-disulphonate, disodium, *133*, 214
4-(4-Bis(2-chloroethyl)aminophenyl)butyric acid, *133*, 29, 37
Bis(β-chloroethyl)methylamine, *133*, 102
1,3-Bis(2-chloroethyl)-3-nitrosourea, *133*, 214
Bis(β-chloroethyl) sulphide, *133*, 102
Bis-chloromethyl ether, *130*, 327; *134*, 96
Bis(2-chloro-1-methylethyl)ether, *133*, 28, 35
1,3-Bis(cyclohexyl)thiourea, *133*, 31, 38
1,4-Bis[2-(3,5-dichloropyridyloxy)]benzene, *129*, 304
Bis(*p*-dimethylamino)diphenylmethane, *133*, 214
Bis(*p*-(dimethylamino)phenyl)methane, *133*, 28, 35
4,4′-Bis(2-sulphostyryl)biphenyl, disodium, *133*, 214
Bisulphite, mutagenesis, bacteriophage T4 particles refractory to, *129*, 149
Blankophor FBO, *133*, 214
Bleomycin, *133*, 214
–, and anticlastogens in human lymphocyte cultures, rat liver S9, *129*, 195
–, in CHO/HGPRT assay, inhibition by superoxide dismutase, *135*, 199
–, derivatives, Salmonella TA102, abstract, *130*, 362
–, *E.coli*, reappraisal of mutation induction at low survival levels, abstract, *130*, 219
–, *E.coli umu*$^+$-encoded function, *139*, 101
–, evaluations of wasted mouse fibroblasts as model of ataxia telangiectasia in vitro, *140*, 219
–, and γ-irradiation, response of cord blood lymphocytes, *130*, 395
–, *Oryzias latipes*, *125*, 221
–, posttreatment of G2 phase CHO cells with Neurospora endonuclease, *140*, 111
–, sulphate, *133*, 214
–, –, Salmonella (SV50)/arabinose-resistant forward mutation, *130*, 81
–, and UV, signal of induction of *recA* protein in *E.coli*, *131*, 53
–, UV-type and ionizing radiation-type DNA repair by nucleoid sedimentation technique, *131*, 137
–, yeast meiotic products, drug synergism or antagonism, *141*, 161
Bloom syndrome, human fibroblasts, sensitivity to mitomycin C, *131*, 223
Blue No. 1, *134*, 5
Blue No. 2, *134*, 5
'Blue cotton', dynamic adsorption of mutagens, abstract, *130*, 368
L-Borneol, *133*, 214
BPDE, human epithelial teratoma cells, HGPRT locus, *130*, 127
Brilliant Blue FCF, *133*, 31, 38
Bromacil, *133*, 214
p-Bromoaniline, *125*, 298, 299
Bromobenzene, *133*, 216
1-Bromo-4-chlorobenzene, *133*, 216
Bromochlorodifluoromethane, mouse micronucleus assay, abstract, *130*, 250
(4-Bromo-2-(chloromethyl)phenoxy)acetic acid, (m)ethyl ester compound with hexamethylenetetramine (1 : 1), *133*, 215
Bromodeoxyuridine, in culture medium, Chinese hamster ovary cells, *127*, 155
–, path probability model for sister-chromatid exchanges by alkylating agents, *126*, 35
–, resistance, thymidine transport and phosphorylation in Friend leukaemia cells, *126*, 53
–, in vivo sister-chromatid exchange analysis, *139*, 57
5-Bromodeoxyuridine, *134*, 72
–, in human lymphocyte culture, sister-chromatid exchange frequency alterations, *127*, 149
–, single injection in melted agar, sister-chromatid exchange study, new method, *141*, 189
–, substituted DNA, replication, in CHO cells, sister-chromatid exchanges, *140*, 21
–, substituted DNA templates, replication, but not incorporation into nascent DNA, *140*, 33
5-Bromo-2′-deoxyuridine, *133*, 216
Bromodichloromethane, *133*, 216
(4-Bromo-2-((diethylamino)methyl)phenoxy)acetic acid derivatives, *133*, 215
(4-Bromo-2-((dimethylamino)methyl)phenoxy)acetic acid derivatives, *133*, 215
7-Bromomethylbenz[*a*]anthracene, *130*, 327
7-(Bromomethyl)-12-methylbenz[*a*]anthracene, *133*, 216
(4-Bromo-2-(4-morpholinylmethyl)phenoxy)acetic acid derivatives, *133*, 216
1-(4-Bromophenyl)-3,3-dimethyltriazene, *133*, 216
(4-Bromo-2-(1-piperidinylmethyl)phenoxy)acetic acid derivatives, *133*, 216
(4-Bromo-2-(4-piperidinylmethyl)phenoxy)acetic acid (phenylmethylene)hydrazide, *133*, 216
5-Bromouracil, *133*, 216
Bucetin, mutagenicity, mechanism of species difference, abstract, *130*, 374
Bufferin, *138*, 162
Bulgaria, Local Activity Report 1983 EEMS, *130*, 305
Bullous pemphigoid, enzymatic repair of premutagenic DNA lesions in human epidermis, *131*, 184
Burdock, desmutagenic factor, *129*, 25
–, edible, adsorption of pyrolysate mutagens by, *141*, 150
Busulphan, *133*, 26, 33
–, concentration-dependent effect on polytene chromosomes, abstract, *130*, 193

Butadiene diepoxide, *138*, 160
–, *N.crassa* spheroplasts, *125*, 43
1,4-Butanediol diacrylate, *137*, 97
1,4-Butanediol dimethacrylate, *137*, 97
1,4-Butane sultone, *133*, 216
Butanol, Chinese hamster V79 cells, micronucleus compared with sister-chromatid exchange assay, *130*, 273
Butisan, *133*, 216
4-Butoxy-3-((dimethylamino)methyl)benzeneacetic acid hydrazide, *133*, 216
Butyl acrylate, *137*, 96
tert-Butyl alcohol, *133*, 102
Butylate, *136*, 234
Butylated hydroxyanisole, *134*, 81
Butylated hydroxytoluene, *134*, 5, 73, 78
–, liver cancer in mouse or rat, *133*, 16
tert.-Butyl hydroperoxide, *133*, 102, 216
N-Butyl-*N*-(4-hydroxybutyl)nitrosamine, *134*, 5
Butyl methacrylate, *137*, 96
N-Butylmorpholine, rat hepatocyte primary culture/DNA repair test, *136*, 153
4-(Butylnitrosamino)-1-butanol, *133*, 31, 38
N-Butyl-*N*-nitrosourea, *131*, 104; *133*, 216
γ-Butyrolactone, *130*, 328; *133*, 28, 35

Cabbage, adsorption of pyrolysate mutagens by, *141*, 150
Cacodylic acid (Phytar), *133*, 216
Cadmium, *133*, 31, 38; *134*, 98, 106
Cadmium chloride, *131*, 173; *133*, 32, 39, 174, 179, 216; *134*, 5, 80, 161
–, cultured Chinese hamster cells, short-term treatment, *130*, 374; *137*, 103
–, *S. typhimurium*, synergism with two nitrosamines, *138*, 9
Cadmium compounds, *134*, 104, 105
Cadmium diethyl dithiocarbamate, *134*, 5
Cadmium sulphate, *133*, 32, 39, 174, 179; *134*, 161; *138*, 161
Cadmium sulphide, *133*, 31, 38
Cadmium, yeast cells, abstract, *130*, 250
Caenorhabditis elegans, dauer larvae, effects of age and liquid holding on UV sensitivities, *132*, 95
–, pachytene karyotype analysis of *rad*-4 radiation-sensitive mutants, *129*, 337
Caffeic acid, *135*, 111
Caffeine, *130*, 328; *133*, 102, 173, 177, 217; *134*, 5, 76, 157, 161
–, and aberrations by thiotepa, mitomycin C and *N*-methyl-*N'*-nitro-*N*-nitrosoguanidine, human lymphocytes, *126*, 251
–, and bromo- or chloro-deoxyuridine, in CHO cells, *127*, 155
–, Chinese hamster ovary cells, *136*, 137
–, drug synergism or antagonism in induction of diploid meiotic products in yeast, *141*, 161
–, and mitomycin C damage, in *Xenopus laevis* cells, *128*, 25
–, *Oryzias latipes*, *125*, 221
–, in *Pleurodeles waltl*, *125*, 275
–, posttreatment of G2 phase CHO cells with Neurospora endonuclease, *140*, 111
–, and pyronin Y, in *Allium cepa* root-tip cells, *127*, 119
–, in Syrian baby hamster kidney cells, *131*, 71
Caffeine, (*continued*)
–, and tetracycline-induced mutation in V79 cells, *135*, 211
Calamus drugs, mutagenicity screening, abstract, *130*, 254
Calcium chloride, *138*, 161
Calcium chromate, *133*, 32, 39, 174, 179
Callithrix jacchus, karyotypes most similar to those of man, diagrammatic representation, *126*, 90
–, stem cell spermatogonia, X-irradiation, *129*, 231
Cancer, cells preferential toxicity of ascorbic acid, *133*, 147
–, of colon, faecal mutagens in Salmonella, mixed-western diet, *135*, 11
–, gastric, intercultivar difference of *V.faba* after incubation with nitrite, *130*, 391
–, of liver, in rat or mouse, agents that increase incidence of liver cancer, *133*, 12
–, multicausal, multistage nature, *133*, 3
Caprate, and *N*-nitrosodimethylamine, in *E.coli*, *135*, 87
Caproate, and *N*-nitrosodimethylamine, in *E.coli*, *135*, 87
ε-Caprolactone, *133*, 217
Caprylate, *135*, 93
Capsicum annuum, mitomycin C, *138*, 47
Captafol, *131*, 104
Captan, *125*, 294; *130*, 102; *131*, 104; *133*, 29, 36, 171, 177, 217; *134*, 5, 73
–, Salmonella, *130*, 81
Caragard, *133*, 217
Caramel, Salmonella and cultured mammalian cells, *139*, 161
Carbadox, *131*, 104
–, Chinese hamster V79 cells, *139*, 199
–, V79 cells, SCE induction, abstract, *130*, 256
Carbamate, pesticide, Aldicarb, cultured human lymphocytes, *138*, 175
Carbamazepine, anti-epileptic drug, *139*, 83
–, 10,11-oxide, *129*, 305
Carbamylhydrazine, *133*, 173, 178
1-Carbamyl-2-phenylhydrazine, *133*, 173, 178; *134*, 161
Carbaryl, *129*, 304; *133*, 217
–, in *Pleurodeles waltl*, *125*, 275
–, plus S9 mix, in V79 cells, *125*, 269
1-(4-Carbethoxyphenyl)-3,3-dimethyltriazene, *133*, 217
3-Carbethoxypsoralen, compared with two new monofunctional pyridopsoralens, human skin fibroblasts, *138*, 63
–, in the dark, Salmonella, *136*, 49
Carbofuran, *133*, 217
Carbon monoxide, and dimethylnitrosamine, in *A.thaliana*, *139*, 29
–, and emodin, in rat, *125*, 135
Carbon tetrachloride, *133*, 10, 26, 33, 172, 177, 217; *134*, 5, 160
–, *A.nidulans*, *136*, 109
Carboxyphosphamide, several test systems, *129*, 47
Carcinogen(s), adducts, localized, bacterial plasmids, *126*, 127
–, Ames test-negative, in cultured mammalian cells, abstract, *130*, 369
–, anti-effects of ascorbic acid, *133*, 146
–, of breast and colon, plus Japanese seaweed, in Salmonella, *127*, 113
–, genotoxic and non-genotoxic, approaches for distinguishing, summary, *133*, 23
–, –, differentiation, report of ICPEMC, *133*, 1

Carcinogen(s), genotoxic and non-genotoxic, (*continued*)
–, –, means of distinguishing, *133*, 6
–, –, –, tests for genotoxicity, *133*, 6
–, human, suscepted, analysis of spectra of genetic activity, *134*, 89
–, of liver, genotoxic, *133*, 13
–, non-genotoxic, mechanisms of action, and implications for human risk assessment, *133*, 22
Carcinogens/mutagens, new mechanism, abstract, *130*, 188
Carcinogenic aromatic amines, liver, kidney and small-intestine microsomal-mediated mutagenicity, *125*, 23
Carcinogenicity, acrylonitrile, *134*, 54
–, data, correlation with, *Neurospora crassa* mutation tests, *133*, 130
–, –, mammalian, correlation with *D.melanogaster* data, test performance, *134*, 83
–, nitroarenes in diesel emissions, *140*, 1
–, prediction of, assembling a battery of assays, case study, *141*, 65
–, testing programme, role of *D.melanogaster* assay, *134*, 85
Carcinogenesis, of bladder, mutagenicity of urine, of species fed *N*-[4-(5-nitro-2-furyl)-2-thiazolyl] formamide or 2-amino-4-(5-nitro-2-furyl)thiazole, *135*, 169
–, characterization of unscheduled DNA synthesis assay with Syrian hamster embryo cells, *129*, 111
–, of colon, in rat, oleic acid, *140*, 155
–, and environmental mutagenesis, test method development, validation and utilization, *130*, 353
–, and mutagenesis, abstracts of papers of EEMS 1983, *130*, 186
–, non-genotoxic mechanisms, tests, *133*, 12
Cardiovascular anomalies, congenital, estimates of detriment, *128*, 84
Cardiovascular drugs, reaction with nitrite, abstract, *130*, 366
Carmoisine, *133*, 217
Carofur, *133*, 217
Carprofen, bacterial systems, *138*, 133
Carrot, adsorption of pyrolysate mutagens by, *141*, 150
Casoron, *133*, 217
Catalase, and catecholamines, in Salmonella and *B.subtilis* strains, *137*, 17
–, Chinese hamster ovary cells, *126*, 265
–, induction in Salmonella, protection from effects of H_2O_2, *141*, 145
Catechol, *135*, 111
Catecholamines, Salmonella and *B.subtilis* strains, *137*, 17
Central mudminnow, cells, chemical mutagens, *129*, 129
Central nervous system, estimates of detriment for congenital anomalies, *128*, 80
Centrifugation method, density-gradient enrichment of newly-formed mouse erythrocytes, *130*, 159
Cepacol, *138*, 162
Cercopithecus aethiops, karyotypes most similar to those of man, diagrammatic representation, *126*, 90
Chalks, blue, characterization of a mutagen, abstract, *130*, 364
Chenodeoxycholate, *133*, 20
Chick, embryo, fibroblasts, critique on analysis of photorepair, *131*, 205
–, –, –, survival after photoreactivation, effect of post-UV dark incubation, *132*, 33
Chicken, mutagens in canned foods, *141*, 131
–, S9 liver preparations, Salmonella and yeast tests, *140*, 75
Chili with beans, mutagens in canned foods, *141*, 131
Chimney soot, cell transformation assay, abstract, *130*, 261
Chinese hamster, antimutagenic effect of ethoxyquin, *135*, 125
–, AT3-2, ovary cells, 2,4-diaminotoluene, locus specificity, *135*, 115
–, cells, cultured, cadmium chloride, short-term treatment, *137*, 103
–, –, ethyl methanesulphonate, *134*, 126
–, –, hyposensitive to ethyl methanesulphonate, sister-chromatid exchanges, *129*, 181
–, –, metal-induced lesions and repair replication, *131*, 173
–, –, mid- and near-UV monochromatic light, action spectra, *129*, 251
–, –, monofunctional alkylating agents, relationship between several kinds of damage, *128*, 31
–, –, superoxide-generating system, aberrations, *140*, 27
–, –, wild-type and 6-thioguanine-resistant, 3-aminobenzamide, pathways of purine biosynthesis, *131*, 123
–, ethyl carbamate, ethyl *N*-hydroxycarbamate and vinyl carbamate, *126*, 159
–, fibroblast cells, measurement of aneuploidy, modified hypotonic treatment, *139*, 127
–, lung cells, cultured, instant coffee studies, *141*, 109
–, –, in vitro micronucleus assay compared with sister-chromatid exchange assay, *130*, 273
–, ovary cells, autoradiographic detection of toxin-resistant mutants, abstract, *130*, 212
–, –, benzo[*a*]pyrene, transient DNA lesions, *140*, 141
–, –, chemical mutagens, *129*, 129
–, –, cyclophosphamide, *129*, 47
–, –, defective in double-strand break rejoining, X-ray-sensitive mutants, *132*, 189
–, –, derivatives of polycyclic aromatic hydrocarbons, *129*, 365
–, –, DNA-strand breaks associated with halogenated pyrimidine incorporation, *131*, 129
–, –, effect of prior X-irradiation on UV-induced sister-chromatid exchange, *139*, 123
–, –, EM9, poly(ADP-ribose) metabolism, *128*, 213
–, –, enhancing activity of 12-*O*-tetradecanoylphorbol 13-acetate, *129*, 119
–, –, enzymically generated active oxygen species, *126*, 265
–, –, *N*-ethyl-*N'*-nitro-*N*-nitrosoguanidine, and diethyl sulphate, *132*, 41
–, –, excision-deficient, effect of UV light on DNA replication, *132*, 119
–, –, G2 phase cells, posttreatment with Neurospora endonuclease, *140*, 111
–, –, HGPRT forward mutation, bleomycin, inhibition by superoxide dismutase, *135*, 199
–, –, HGPRT locus, clastogenic chemicals, *136*, 137
–, –, human growth hormone in vitro *127*, 61
–, –, inhibitors of ADP-ribosyl transferase, *126*, 63
–, –, in vivo and in vitro cytogenetic effects of amsacrina, *138*, 87
–, –, K1, aberrations by *o*-phenylphenol, *141*, 95
–, –, K1-BH4, ethylphenylglycidate, *138*, 1

Chinese hamster, ovary cells, (*continued*)
–, –, medium containing bromo- or chlorodeoxyuridine, *127*, 155
–, –, mono- and di-functional aromatic glycidyl compounds, *135*, 159
–, –, mutant EM9, apurinic/apyrimidinic endonuclease activities, *141*, 41
–, –, –, DNA-ligase activities appear normal, *131*, 209
–, –, new assay system for cell transformation, abstract, *130*, 214
–, –, 4-nitroquinoline 1-oxide, *140*, 209
–, –, phenytoin, primidone and phenobarbital, *138*, 71
–, –, repair-deficient, DNA-damaging agents, rapid detection, *130*, 321
–, –, replication but not incorporation into nascent DNA of 5-bromodeoxyuridine, *140*, 33
–, –, replication of unsubstituted and BrdU- or CldU-substituted DNA, *140*, 21
–, –, temperature-sensitive 6-thioguanine-resistant mutants, base-pair substitution mutations, *139*, 95
–, primary cell line, mitotic aneuploidy, abstract, *130*, 178
–, primary lung cell cultures, sister-chromatid exchange, *130*, 333
–, V79 cells, alkylating agents, negative evidence for adaptive response, *129*, 243
–, –, carbaryl plus S9 mix, thioguanine resistance and sister-chromatid exchanges, *125*, 269
–, –, cell clones, HGPRT revertants, aminopterin- or azaserine-containing media, *126*, 273
–, –, cell nuclei and aqueous solution, benzo[*a*]pyrene binding to DNA, *125*, 307
–, –, daunorubicin and UV, pretreatment with sodium butyrate, *140*, 175
–, –, emodin, HGPRT and SCE assay, *138*, 219
–, –, HGPRT-deficient, quercetin, *136*, 9
–, –, HGPRT locus, abstract, *130*, 372
–, –, HGPRT system, benzo[*a*]pyrene and bioantioxidants, *137*, 57
–, –, influence of dietary selenium activity of perfusate and bile from rat liver, *130*, 121
–, –, interaction of far- and near-UV irradiation, *125*, 283
–, –, in vitro micronucleus assay, abstract, *130*, 211
–, –, locus-specific 'mutator' phenotypes, abstract, *130*, 178
–, –, O^6-methylguanine, revision, *139*, 149
–, –, quindoxin, carbadox and olaquindox, *139*, 199
–, –, some intercalating agents, *137*, 117
–, –, spheroids, recovery of thioguanine-resistant cells, *125*, 315
–, –, synthetic pyrethroids, lack of mutagenicity, *137*, 7
–, –, tetracycline, *135*, 211
–, –, 6-thioguanine resistance, soft agar technique, *125*, 105
–, –, UV, rate of DNA synthesis, *131*, 81
–, V79-E, incorporation of liposomes, application of genotoxins of low water solubility, *139*, 207
–, –, tri-substituted nitrosoureas, *126*, 259
Chinomethionate, *133*, 217
Chinosol, *133*, 217
Chloracizine · HCl, *133*, 173, 178
Chloral hydrate, *133*, 102
–, genetic and biochemical studies, abstract, *130*, 247
–, in vitro and in vivo, *141*, 19
Chlorambucil, *133*, 217
Chloramphenicol, *133*, 10, 26, 33; *134*, 100; *138*, 162
–, pretreatment of *E.coli* CM891 with ethylenediaminetetraacetate, *140*, 13
Chlordane, *133*, 11, 32, 39
Chlordiazepoxide, *133*, 217
Chlordimeform, *133*, 217
–, mammalian spot test, *135*, 219
Chlornaphazine, *133*, 30, 37
2-Chloroacetaldehyde, *133*, 217
Chloroacetic acid, *130*, 145
N-Chloroacetyl-*N*-phenylacetamide, *133*, 29, 36
o-Chloroaniline, *133*, 217
p-Chloroaniline, *133*, 28, 35, 217; *134*, 6
(4-Chloro-2-(chloromethyl)phenoxy)acetic acid, esters, *133*, 217
Chlorodeoxyuridine, in culture medium, Chinese hamster ovary cells, *127*, 155
–, in vivo sister-chromatid exchange analysis, *139*, 57
5-Chlorodeoxyuridine, substituted DNA, replication, in CHO cells, sister-chromatid exchanges, *140*, 21
Chloro, derivatives, of polynuclear aromatic hydrocarbons, abstract, *130*, 232
–, –, –, Salmonella, *135*, 21
5-Chloro-2-(2,4-dichlorophenoxy)phenol, *133*, 217
7-Chloro-1,3-dihydro-1-methyl-5-phenyl-1,4-benzodiazepin-2-one, *133*, 30, 37
1-Chloro-2,4-dinitrobenzene, *134*, 6
1-Chloro-2,3-epoxypropane, *133*, 171, 176
2-Chloroethanol, *133*, 217
–, *A.nidulans*, somatic segregation, *138*, 33
3-(2-Chloroethoxy)-1,2-dichloropropene, volatile Salmonella mutagens, *136*, 55
2-Chloroethyl chloroformate, *133*, 218
Chloroethylene oxide, *133*, 218
–, mutagenesis, mechanism, abstract, *130*, 165
Chloroethyl methanesulphonate, *134*, 74
1-Chloroethyl-3-methyl-3-phenyl-1-nitrosourea, Chinese hamster V79-E cells, *126*, 259
Chloroform, *133*, 10, 27, 34, 218
–, *A.nidulans*, *136*, 109
–, –, somatic segregation, *138*, 33
Chlorogenic acid, *135*, 111
4-Chloromethylbiphenyl, letter to Editor, *135*, 51
Chloromethyl methyl ether, *134*, 96
3-Chloromuconic acid, Salmonella (SV50)/arabinose-resistant forward mutation, *130*, 81
1-(4-Chlorophenyl)-3,3-dimethyltriazene, *133*, 218
4-Chloro-*m*-phenylenediamine, *133*, 31, 38
4-Chloro-*o*-phenylenediamine, *127*, 109; *133*, 28, 35
5-(4-Chlorophenyl)-6-ethyl-2,4-pyrimidinediamine, *133*, 26, 33
2-Chloropropane, *133*, 218
1-Chloropyrene, Salmonella, *135*, 21
Chloroquine, bacterial systems, *138*, 133
–, Chinese hamster cells, sister-chromatid exchanges, *137*, 117
–, Drosophila *zeste* somatic eye mutation test, *138*, 169
–, *S.cerevisiae*, abstract, *130*, 179

4-Chlororesorcinol, *133*, 102
Chlorothen, Salmonella, *135*, 105
p-Chlorotoluene, *133*, 218
4-Chloro-*o*-toluidine, mammalian spot test, *135*, 219
4-Chloro-*o*-toluidine · HCl, *134*, 6
Chlorozotocin, *133*, 218
Chlorpropamide, *134*, 6
CHO, *see* Chinese hamster ovary
Cholate, *133*, 20
Cholesterol, *133*, 20, 172, 177
Cholesterol-α-epoxide, *133*, 20
Chromic acetate, *133*, 174, 179; *134*, 161
Chromic acid, *138*, 161
Chromic chloride, *133*, 11, 32, 39, 174, 179; *134*, 161
Chromic nitrate, *134*, 161
Chromic nitrate · $9H_2O$, *133*, 174, 179
Chromic oxide, mammalian cells in vitro, abstract, *130*, 186
Chromic potassium sulphate, *134*, 161
Chromic potassium sulphate · $12H_2O$, *133*, 174, 179
Chromium, *134*, 98, 106
Chromium, carbonyl, *133*, 174, 179
Chromium compounds, *134*, 104, 105
–, –, Ames reversion test and a bacterial DNA-repair test, *133*, 192
–, –, *lacI* gene of *E.coli*, *126*, 9
–, trioxide, *133*, 31, 38, 174, 179
Chromium(VI), and apparent phenotypic reversion in Salmonella, TA100, *138*, 127
Chromones, in Salmonella, *135*, 77
Chromosome, anomalies, estimates of detriment associated with, *128*, 94
–, breaks, in Drosophila, mass isolation of deficiencies, *126*, 25
–, double minute, characterization of induction properties, *130*, 188
–, iso-, octacentric, in mouse L-cells, evolution, *128*, 41
Chrysanthemic acid (DI-*cis*/*trans*), *133*, 218
Chrysene, *130*, 327; *131*, 104; *133*, 29, 36, 218
– human epithelial teratoma cells, HGPRT locus, *130*, 127
Chrysin, *135*, 81
Chrysoeriol, *135*, 81
Chrysoidine hydrochloride, *133*, 30, 37
C.I. Acid Blue 9, *133*, 11
C.I. Acid Orange-52, *136*, 35
C.I. Acid Red-26, *136*, 35
C.I. Acid Red-33, *136*, 35
C.I. Acid Red-85, *136*, 35
C.I. Acid Red-114, *136*, 35
C.I. Developer 1, *133*, 27, 34
C.I. Direct Black-38, *136*, 35
C.I. Direct Blue-1, *136*, 35
C.I. Direct Blue-6, *136*, 35
C.I. Direct Blue-14, *136*, 35
C.I. Direct Blue-14 (analytical), *136*, 35
C.I. Direct Blue-15, *136*, 35
C.I. Direct Blue-53, *136*, 35
C.I. Direct Blue-218, *136*, 35
C.I. Direct Brown 1 : 2, *136*, 35
C.I. Direct Brown-31, *136*, 35
C.I. Direct Brown-95, *136*, 35
C.I. Direct Red-2, *136*, 35
C.I. Pigment Yellow-12, *136*, 35
C.I. Red 26, *133*, 11
C.I. Solvent Yellow-14, *133*, 30, 37
Cigarette smoke, condensate, *130*, 102
–, –, fractions, sister-chromatid exchanges in human lymphocytes, abstract, *130*, 240
–, –, metabolic activation by S12 preparations of human lung, *139*, 9
–, extracts, *133*, 218
–, in situ test system, *139*, 177
–, whole, sister-chromatid exchange in bone-marrow cells of mice, *136*, 73
Cignolin, *133*, 218
Cimetidine, *133*, 173, 177
Cinnamic aldehyde, mouse micronucleus test, pilot experiment, *141*, 167
Cinnamyl anthranilate, *133*, 10, 27, 34
Cismethrin, in Samonella and V79 cells, *137*, 7
Cisplatin, in yeast, *127*, 23
Citric acid, *130*, 103
Citric acid trisodium, *138*, 161
Citrinin, *133*, 218
Cleft lip plus cleft palate, congenital anomalies, estimates of detriment, *128*, 86
Cleft palate, congenital anomalies, estimates of detriment, *128*, 86
Clofibrate, *129*, 304
Clophen-30, *134*, 81
Clophen-50, *134*, 80
Coal liquefaction workers, urine mutagenicity, *136*, 201
Cobalt chloride, *131*, 173; *133*, 102, 218
Cobaltous chloride, *E.coli recA* protein in vitro, abstract, *130*, 367
–, SOS reactions in *E.coli* B/r, abstract, *130*, 371
Cockayne's syndrome, cell strains, UV- and γ-rays, abnormal sensitivity, *131*, 61
Cocoa, *138*, 160
Coffee, *138*, 160
–, decaf, *138*, 160
–, and formaldehyde exposure in autopsy service workers, *130*, 417
–, inactivating factor in rat liver cytosol, abstract, *130*, 361
–, instant, cultured Chinese hamster lung cells, *141*, 109
Cola, No. 1 and 2, *138*, 160
Colcemid, *134*, 79
–, measurement of levels of aneuploidy in mammalian cells, modified hypotonic treatment, *139*, 127
Colchicine, *133*, 102; *134*, 77
–, mouse micronucleus test, pilot experiment, *141*, 167
Cold urticaria Coeliaki, enzymatic repair of premutagenic DNA lesions in human epidermis, *131*, 184
Collagenase, perfusion, of rat liver, DNA damage and repair in hepatocytes, *141*, 113
Colon carcinogenesis, in rat, oleic acid, *140*, 155
Compound X, alternative distributions of post-implantation death, dominant-lethal assay, *128*, 199, 201

Computer, micro-, programmes, Fisher exact test or binomial approximation, *141*, 205
Congenital anomalies, load of genetic and partially genetic disorders in man, *128*, 73
Congo Red, rat and hamster assays, *136*, 258
Contac, *138*, 162
Contraceptives, *Allium cepa*, *135*, 181
Copper sulphate, *131*, 173; *133*, 218
Corn oil, female mouse, pseudo dominant-lethal response, *129*, 235
–, inhibition of DMBA-induced chromosomal breaks in vivo, *136*, 247
Cotoran, *133*, 31, 38, 218
Cotton, fibre, adsorption of pyrolysate mutagens by, *141*, 150
Coumaphos, *133*, 26, 33
p-Coumaric acid, *135*, 111
Creatinine, glucose and glycine, heating a mixture of, formation of 2-amino-3,7,8-trimethylimidazo[4,5-*f*]quinoxaline, *140*, 55
–, glycine and glucose, heating, formation of 2-amino-3,8-dimethylimidazo[4,5-*f*]quinoxaline, *126*, 239
Creosote P1, presence of benzo[*a*]pyrene and benz[*a*]anthracene, *130*, 153
m-Cresidine, *133*, 10, 28, 35
p-Cresidine, *133*, 29, 36
Cresols, sister-chromatid assay, man and mouse, *137*, 51
Crotoxyphos, *133*, 218
Crystal Violet, *133*, 218
–, *S.typhimurium* and *E.coli, 140*, 165
Cumene, *133*, 225
Cumene hydroperoxide, *133*, 218
Cupferron, *133*, 10, 29, 36
Cupric sulphate, *133*, 174, 179
Curcuma longa, turmeric, in mouse, *136*, 85
Cyanamide, mouse micronucleus test, *136*, 127
Cyanazine, *133*, 102; *134*, 81; *136*, 234
N-Cyanoethyl, and *mono*methylamino analogues, of 4-dimethylaminoazobenzene and 6-dimethylaminophenylazobenzthiazole, Salmonella, *128*, 11
Cycasin, *133*, 32, 39; *134*, 6
Cyclohexalamine, *138*, 161
Cycloheximide, *130*, 328; *134*, 77
–, and caffeine, DNA repair inhibition in Syrian baby hamster kidney cells, *131*, 71
–, plus ethyl methanesulphonate or mitomycin C, Chinese hamster cells, *129*, 181
–, and tetracycline-induced mutation in V79 cells, *135*, 211
–, and UV in cultured marsupial cells, *140*, 199
Cyclohexylamine, *134*, 73, 78
N-Cyclohexyl-3-(5-nitro-2-furyl)acrylic acid amide, *133*, 104
N-Cyclohexyl-3-(5-nitro-2-furyl)propiolic acid amide, *133*, 104
N-Cyclohexyl-3-(5-nitro-2-furyl)propionic acid amide, *133*, 104
Cyclopentamine, *125*, 299
Cyclopenta[*c,d*]pyrene, assay for gene mutation in human lymphoblast line AHH-1, *128*, 221
Cyclophosphamide, *133*, 26, 33, 173, 178, 218,; *134*, 6, 76, 101, 104–106, 157
–, and adriamycin, in *D.melanogaster, 135*, 175
Cyclophosphamide, (*continued*)
–, alkaline elution of rat testicular DNA, *130*, 295
–, alternative distributions of post-implantation death, dominant lethal assay, *128*, 198, 200
–, and anticlastogens in human lymphocyte cultures, rat liver S9, 129, 195
–, antimutagenic effects on male germ cells, *140*, 127
–, Chinese hamster primary lung cell cultures, *130*, 333
–, enhanced radiosensitivity, treated mouse stem cell spermatogonia, *128*, 207
–, and ethoxyquin, in mammals, *135*, 125
–, human lymphocyte assay, metabolic activation by S9 with low cytotoxicity, *130*, 411
–, human whole blood cultures and purified lymphocyte cultures, *130*, 403
–, metabolic activation by S12 preparations of human lung, *139*, 9
–, and metabolites, several test systems, *129*, 47
–, and mitomycin C, in female mouse germ cells, *128*, 181
–, in normal and splenectomized Fischer-344 rat, *127*, 169
–, in pregnant mouse, *126*, 47
–, pretreatment of *E.coli* CM891 with ethylenediaminetetraacetate, *140*, 13
–, Salmonella and yeast tests, S9 liver preparations from mouse and chicken, *140*, 75
–, screening of 3-methylcholanthrene- and phenobarbital-like chemical inducers of cytochrome p-450 monooxygenases, *129*, 299
–, sister-chromatid exchanges in mouse, single injection of BrdU in melted agar, *141*, 189
–, with or without S9, human lymphocyte in vitro cytogenetic assay, positive and negative control observations, *141*, 59
Cypermethrin, in Salmonella and V79 cells, *137*, 7
Cystamine, protection against radiation in male mouse, *140*, 131
Cystaphos, protection against radiation in male mouse, *140*, 131
Cysteamine, *A.nidulans, 136*, 109
Cytochrome C, aberrations in cultured Chinese hamster cells in superoxide-generating system, *140*, 27
Cytochrome P-450 monooxygenases, 3-methylcholanthrene- and phenobarbital-like chemical inducers of, *129*, 299
Cytoplasm, preserved, micronuclei in lymphocytes, *130*, 63
Cytosine arabinoside, leukaemia patients, micronucleus test, *130*, 113
Cytosol, of rat liver, quercetin mutagenesis, superoxide dismutase as enhancing factor *129*, 19
Cytostatic agents, hyperthermia and X-irradiation, isolated mammalian cells, abstract, *130*, 199
Cytoxan, *133*, 26, 33

2,4-D, *133*, 218; *134*, 78
–, sodium salt, *133*, 219
D&C Red-33, *136*, 35
Dapsone, *133*, 10, 27, 34
Dark, biological effects of dyes, *E.coli* WP6, *137*, 1
–, incubation, post-UV, survival of chick-embryo fibroblasts after photoreactivation, *132*, 33
–, SFIA SOS repair function by psoralens, *131*, 111

Daunomycin, *130*, 144, 145; *131*, 104; *133*, 32, 39; *138*, 162
Daunorubicin, leukaemia patients, micronucleus test, *130*, 113
–, pretreatment of *E.coli* CM891 with ethylenediaminetetraacetate, *140*, 13
–, V79 cells, pretreatment with sodium butyrate, *140*, 175
p,p'-DDD, *133*, 10, 27, 34
DDE, *130*, 145; *133*, 221; *134*, 6
p,p'-DDE, *133*, 10, 27, 34, 171, 176
–, Chinese hamster ovary cells, *136*, 137
DDT, *129*, 304; *133*, 221; *134*, 6, 76
–, liver cancer in mouse or rat, *133*, 14
p,p'-DDT, *133*, 26, 33, 171, 176
Decarbamoyl mitomycin, *130*, 327
Deciduomata, spontaneously occurring, in mouse, analisis, *128*, 65
Deltamethrin, in Salmonella and V79 cells, *137*, 7
Demeton, *133*, 219
Demethylponkanetin, *135*, 81
Denmark, Local Activity Report 1983 EEMS, *130*, 306
2'-Deoxyadenosine, and very low doses of X-rays, in human lymphocytes, during G_2, *141*, 45
Deoxycholate, *133*, 20
Deoxyguanosine, hydroxylation at C-8 position, abstract, *130*, 366
Deoxynucleoside triphosphate pools, in *E.coli*, UV-irradiation, *131*, 97
– –, hydroxyurea in human cells, *131*, 163
11-Desmethylellipticine, *129*, 303, 305
5,11-Desmethylellipticine, *129*, 303, 305
Deuterium oxide, *134*, 75
Dexon, *131*, 104
Diacetoxyscirpenol, *133*, 219
N,N'-Diacetylbenzidine, Ames assay, effect of acetyl-coenzyme A, *137*, 39
Diacetylhydroxyurethane, *134*, 74
Diallate, *133*, 31, 38; *134*, 6
–, herbicides, battery of in vitro and in vivo tests, *136*, 173
–, volatile Salmonella mutagens, *136*, 55
2,4-Diaminoanisole, *133*, 30, 37; *134*, 6
–, sulphate, *133*, 104
2,5-Diaminoanisole sulphate, *133*, 104
1,4-Diaminoanthraquinone, *133*, 219
Diamino aromatic compounds, mutagenicity and chemical structure, abstract, *130*, 361
1,3-Diaminobenzene, dermal application, mutagens in rat urine, *138*, 137
3,3'-Diaminobenzidine, *133*, 170, 175
3,8-Diamino-5-(diethylmethylaminopropyl)-6-phenylphenanthridinium diiodide, *127*, 34
4,4'-Diaminodiphenyl ether, structure–activity relationship, abstract, *130*, 365
3,8-Diamino-5-ethyl-6-phenylphenanthridinium bromide (ethidium), Salmonella, *127*, 34
1,2-Diamino-4-nitrobenzene, *133*, 219
2-(2',4'-Diaminophenoxy)ethanol, in Salmonella, *135*, 31, 49
2,4-Diaminotoluene, *133*, 28, 35, 104; *134*, 6
–, in human fibroblasts, metabolic activation by prostaglandin synthase, *127*, 107
2,4-Diaminotoluene, (*continued*)
–, mouse lymphoma and Chinese hamster ovary cells, locus specificity, *135*, 115
2,5-Diaminotoluene, rat and hamster assays, *136*, 258
cis-Diamminedichloroplatinum(II), SV40 DNA, host-cell reactivation in human fibroblasts, *132*, 181
–, in yeast, *127*, 23
cis-Diammonia platinum II chloride, *N.crassa* spheroplasts, *125*, 43
o-Dianisidine, Ames assay, effect of acetyl-coenzyme A, *137*, 39
–, dihydrochloride (3,3'-dimethoxybenzidine), *136*, 35
–, Salmonella, *136*, 33
Diazepam, human and V79 cells, abstract, *130*, 260
–, lack of effect of self-poisoning on subsequent reproductive outcome, *127*, 175
3,8-Diazido-5-ethyl-6-phenylphenanthridinium chloride, *127*, 34
Diazinon, *133*, 30, 37, 219
Diazomethane, *133*, 104, 219
Dibekacin, *133*, 219
Dibenz[*a,j*]acridine, *133*, 29, 36
Dibenz[*a,h*]anthracene, *133*, 26, 33; *134*, 6
–, human hepatoma cell-mediated assay, *136*, 65
Dibenz[*de,kl*]anthracene, *133*, 170, 175
1,2;5,6-Dibenzanthracene, *133*, 104; *134*, 74
Dibenzo[*a,i*]pyrene, *133*, 29, 36
Dibenzothiophene, Salmonella, *135*, 97
1,2-Dibromo-3-chloropropane, *131*, 104; *133*, 28, 35; *134*, 6
1,2-Dibromoethane, *131*, 104; *133*, 28, 35, 219; *134*, 6
–, *A.nidulans*, somatic segregation, *138*, 33
Dibromouridine, *138*, 161
Dibunol, and benzo[*a*]pyrene, in V79/HGPRT system, *137*, 57
2,6-Di-*tert*-butyl-4-methylphenol, and benzo[*a*]pyrene, in V79/HGPRT system, *137*, 57
Dibutylnitrosamine, *133*, 30, 37
Dibutyl phthalate, *133*, 219
Dicamba, *133*, 219; *136*, 234
Dichlofluanid, *133*, 219
2,2-Dichloroacetaldehyde, *A.nidulans*, somatic segregation, *138*, 33
Dichloroacetonitrile, *133*, 219
p-Dichloroazobenzene, *130*, 145
3,3'-Dichlorobenzidine, *133*, 27, 35; *134*, 6
–, dihydrochloride, *136*, 35
–, effect of storage at 4° on Salmonella/microsome test plates, *141*, 7
–, Salmonella, *136*, 33
p,p'-Dichlorobenzophenone, *133*, 171, 176
4,5-Dichlorocatechol, Salmonella (SV50)/arabinose-resistant forward mutation, *130*, 81
cis-Dichlorodiammine platinum(II), theophylline reversal of alkylator-induced replicon initiation inhibition, *141*, 117
Dichlorodiphenyltrichlorethane, *129*, 304
–, liver cancer in mouse or rat, *133*, 14
1,2-Dichloroethane, *133*, 28, 35; *134*, 6, 78
–, *A.nidulans*, somatic segregation, *138*, 33
2,2-Dichloroethanol, *A.nidulans*, somatic segregation, *138*, 33
1,1-Dichloroethylene, mammalian cells, abstract, *130*, 380
4,5-Dichloroguaiacol, Salmonella (SV50)/arabinose-resistant forward mutation, *130*, 81

Dichloromethane, Salmonella, relationship between exposure time and metabolic activation, *136*, 107
3,4-Dichloro-*N*-nitrosopiperidine, *134*, 81
2,4-Dichlorophenoxybutyric acid, *133*, 221
1,2-Dichloropropane, *A.nidulans*, somatic segregation, *138*, 33
Dichloropyrene, Salmonella, *135*, 21
Dichlorvos, *133*, 27, 34, 219
Diclofenac sodium, bacterial systems, *138*, 133
Dicrotophos, *133*, 214
Dicyclopentadiene, *133*, 219
Dieldrin, *129*, 304; *133*, 10, 26, 33, 171, 176, 219; *134*, 6
–, liver cancer in mouse or rat, *133*, 15
Diepoxybutane, -alkylated DNA, in yeast, analysis, *rad3* mutant, bypass replication, *132*, 161
–, posttreatment of G2 phase CHO cells with Neurospora endonuclease, *140*, 111
1,2 : 3,4-Diepoxybutane, *133*, 31, 38, 104, 219; *134*, 74
meso-1,2 : 3,4-Diepoxybutane, *133*, 30, 37
1,2 : 3,4-Diepoxycyclohexane, *133*, 104
1,2 : 5,6-Diepoxyhexane, *133*, 104
1,2 : 7,8-Diepoxyoctane, *133*, 104
1,2 : 4,5-Diepoxypentane, *133*, 104
Diepoxypropyl ether, *133*, 104
Diesel, emissions, nitroarenes, risk identification, *140*, 1
–, exhaust condensate, *138*, 165
–, exhaust fumes, *138*, 165
–, exhaust particulate, biological availability of mutagenic compounds, *135*, 1
–, –, identification of nitroarenes, abstract, *130*, 367
–, particulate, its DCM extract and nitropyrenes, in vivo metabolic activation, abstract, *130*, 237
–, –, sperm abnormalities in mice, abstract, *130*, 242
–, –, powder, urine of rats treated with, abstract, *130*, 237
–, soybean oil mixed fuel exhaust fumes, *138*, 165
Diet, mixed-western, faecal mutagens, *135*, 11
–, mutagenicity, Ames test, abstract, *130*, 370
Dietary restriction, effect of germ-cell responses, abstract, *130*, 215
Diethanolamine maleic hydrazide, tobacco plants, *139*, 25
Diethanolnitrosamine, *125*, 176
Diethylamine hydrochloride, *133*, 219
4-(*N*,*N*-Diethylamino)azobenzene, *133*, 220
3-((Diethylamino)methyl)-4-ethoxybenzeneacetic acid hydrazide, *133*, 219
3-((Diethylamino-methyl)-4-methoxybenzeneacetic acid hydrazide, *133*, 219
3-((Diethylamino)methyl)-4-(1-methylethoxy)benzeneacetic acid hydrazide, *133*, 219
3-((Diethylamino)methyl-4-propoxybenzeneacetic acid hydrazide, *133*, 220
Diethyldithiocarbamate, and dimethylnitrosamine, in *A.thaliana*, *139*, 29
Diethylene glycol diacrylate, *137*, 97
Diethylene glycol dimethacrylate, *137*, 97
3,3-Diethyl-1-methyl-1-nitrosourea, Chinese hamster cells, V79-E, *126*, 259
Diethylnitrosamine, *125*, 176; *130*, 54, 58, 59, 145; *133*, 26, 33, 104, 220; *134*, 6, 72, 76, 157
Diethylnitrosamine, (*continued*)
–, *E. coli* K-12 343/113, microbial mutagenicity assays, *130*, 87
Diethylstilboestrol, *130*, 102, 145; *133*, 10, 18, 19, 26, 33, 104; *134*, 6, 103–106
–, Chinese hamster ovary cells, *136*, 137
–, mouse micronucleus test, pilot experiment, *141*, 167
–, posttreatment of G2 phase CHO cells with Neurospora endonuclease, *140*, 111
–, Salmonella (SV50)/arabinose-resistant forward mutation, *130*, 81
Diethyl sulphate, *133*, 27, 34, 104, 220; *134*, 6, 72, 77
–, Chinese hamster ovary cells, molecular dosimetry, *132*, 41
–, Salmonella, *130*, 81
DiGel, *138*, 162
Diglycidylaniline, CHO cells, *135*, 159
α,ω-Dihalogenoalkanes, Salmonella, direct mutagenic activity, *141*, 11
Dihydralazine · H_2SO_4, *133*, 173, 178
trans-7,8-Dihydrobenz[*a*]pyrene, metabolic activation by S12 preparations of human lung, *139*, 9
trans-7,8-Dihydro-7,8-dihydroxybenzo[*a*]pyrene, Chinese hamster ovary cells, *129*, 365
trans-3,4-Dihydro-3,4-dihydroxy-7-methylbenz[*a*]anthracene, Chinese hamster ovary cells, *129*, 365
Dihydrodiol, plus selenium Salmonella, *127*, 9
Dihydrodiols, Chinese hamster ovary cells, *129*, 365
Dihydrosafrole, *133*, 10, 28, 35
(±)7β,8α-Dihydroxy-9α,10α-epoxy-7,8,9,10-tetrahydrobenzo-[*a*]pyrene, in diploid human fibroblasts, diphtheria toxin and thioguanine resistance, *125*, 95
r-7,*t*-8-Dihydroxy-*t*-9,10-epoxy-7,8,9,10-tetrahydrobenzo[*a*]-pyrene, in human lymphocytes, requirement of low-density lipoproteins, *131*, 37
5,7-Dihydroxy-2-methylchromone, *135*, 81
Dihydroxymethyl peroxide, *133*, 104
(±)-*r*-7,*t*-8-Dihydroxy-*t*-9,10-oxy-7,8,9,10-tetrahydrobenzo[*a*]-pyrene, *129*, 365
1,3-Dihydroxyurea, *134*, 79
Diisopropylnitrosamine, *125*, 176
Dimethoate, *133*, 26, 33, 220
3,3′-Dimethoxybenzidine, *133*, 29, 36
3,3′-Dimethoxy-4,4′-biphenylene diisocyanate, *133*, 27, 34
Dimethylamine hydrochloride, *133*, 220
4-Dimethylaminoazobenzene, *134*, 6
–, *mono*methylamino and *N*-cyanoethyl analogues, Salmonella, *128*, 11
p-Dimethylaminoazobenzene, *130*, 145
–, and its impurities, activities, abstract, *130*, 378
4-(*N*,*N*-Dimethylamino)azobenzene, *133*, 220
N,*N*-Dimethyl-4-aminoazobenzene, *130*, 103; *133*, 170, 175
2′,3-Dimethyl-4-aminobiphenyl, *133*, 220
–, human faecal fractions and nuclear damage in colonic epithelial mouse cells, *141*, 35
3,2′-Dimethylaminobiphenyl, *131*, 105
–, and Japanese seaweed, Salmonella, *127*, 113
–, liver, kidney and small-intestine microsomal-mediated mutagenicity, *125*, 23

6-(2-Dimethylaminoethoxy)-2-(5-nitro-1-methyl-2-imidazole-methylene)-1-tetralone sulphate, *133*, 106, 220
2-(Dimethylamino)ethyl chloride, *133*, 220
p-Dimethylaminophenylazobenzene, in rat, azoreductase activity and carcinogenicity, abstract, *130*, 230
6-Dimethylaminophenylazobenzthiazole, *mono* methylamino and *N*-cyanoethyl analogues, Salmonella, *128*, 11
N,*N*-Dimethylaniline, decreased *N*-oxygenation, in rat liver/cell culture system, by dietary selenium deficiency, *126*, 73
9,10-Dimethylanthracene, *133*, 170, 175
–, Drosophila, *125*, 243
–, metabolic activation of Drosophila fractions, *125*, 229
p-Dimethylazobenzene, *130*, 145
Dimethylbenz[*a*]acridine, active metabolites, role of co-substrates in activation, abstract, *130*, 234
7,9-Dimethylbenz[*c*]acridine, *133*, 220
Dimethylbenz[*a*]anthracene, mouse spot tests, phenobarbital pretreatment, *141*, 105
7,12-Dimethylbenz[*a*]anthracene, *129*, 303, 305; *130*, 54, 56–59, 144, 327; *131*, 105; *133*, 26, 33, 170, 175, 220; *134*, 6
–, Drosophila, *125*, 243
–, human epithelial teratoma cells, HGPRT locus, *130*, 127
–, and Japanese seaweed, Salmonella, *127*, 113
–, liver and human breast cells, abstract, *130*, 225
–, metabolic activation of Drosophila fractions. *125*, 229
–, in mouse, influence of corn oil and its minor constituents, *136*, 247
–, mouse micronucleus test, pilot experiment, *141*, 167
–, in rat, stage-specific induction of sister-chromatid exchanges in utero, *128*, 17
–, in Salmonella assay, effect of dietary protein concentration, *126*, 19
–, sperm abnormality assay, inhibition by naphthoflavones, *136*, 81
9,10-Dimethyl-1,2-benzanthracene, *125*, 297; *133*, 106
–, mouse lung fibroblast cultures, *132*, 197
1,1′-Dimethyl-4,4′-bipyridylium, ion, in nitrogen-fixing *N.muscorum*, *138*, 39
Dimethylcarbamoyl chloride, *133*, 27, 34
Dimethylcarbamyl chloride, *133*, 220
7,14-Dimethyldibenz[*a*,*h*]anthracene, human hepatoma cell-mediated assay, *136*, 65
Dimethyl-4,4′-dimethoxy-5,6,5′,6′-dimethylenedioxybiphenyl-2,2′-dicarboxylate, *129*, 303, 304
Dimethyldodecylamine-*N*-oxide, Salmonella, *135*, 105
Dimethyl formamide, *130*, 328
Dimethylhydrazine, in rat, faecal mutagens and intestinal tumours, *139*, 143
1,1-Dimethylhydrazine, *133*, 26, 33, 173, 178, 220
–, perfusate and bile from rat liver, influence of dietary selenium *130*, 121
1,2-Dimethylhydrazine, *125*, 176; *133*. 30, 37, 173, 178, 220; *134*, 6
–, inability of oleic acid to protect against colon carcinogenesis, in rat, *140*, 155
3,4-Dimethyl-3*H*-imidazo[4,5-*f*]quinoline, Ames test, *137*, 29
3,8-Dimethyl-3*H*-imidazo[4,5-*f*]quinoxaline, Ames test, *137*, 29
Dimethyl methyl phosphonate, dominant lethal mutations in male mouse, *138*, 213
1,3-Dimethylnaphthalene, *133*, 220
Dimethylnitramine, requirement of hydroxylation and nitro reduction for activation, abstract, *130*, 225
Dimethylnitrosamine, *125*, 176, 178; *130*, 54, 56, 58, 59; *133*, 21, 27, 34, 106, 172, 177, 220; *134*, 6, 72, 77, 157
–, assay for gene mutation in human lymphoblast line AHH-1, *128*, 221
–, Chinese hamster primary lung cell cultures, *130*, 333
–, and diethyldithiocarbamate and carbon monoxide, in *A. thaliana*, *139*, 29
–, increase of mutagenicity by dietary selenium deficiency, in isolated rat liver/cell culture system, *126*, 73
–, inhalation exposure, measurement of genotoxic activity, *141*, 123
–, mixed-function oxidase activities in adult Drosophila, *139*, 51
–, in situ microbial test system for airborne workplace mutagens, *130*, 45
Dimethylnitrosopiperidine, *133*, 220, 221; *134*, 80
3,3-Dimethyl-2-oxetanone, *133*, 31
N,*N*′-Dimethyl-*p*-phenylenediamine, rat and hamster assays, *136*, 258
1,3-Dimethyl-3-phenyl-1-nitrosourea, Chinese hamster cells, V79-E, *126*, 259
3,3-Dimethyl-1-phenyl triazene, *134*, 75, 80
N^6,7-Dimethylquinoline-5,6-diamine, Ames test, *137*, 29
N^6,3-Dimethylquinoxaline-5,6-diamine, Ames test, *137*, 29
Dimethyl sulphate, *133*, 27, 34, 220; *134*, 73, 78
–, Chinese hamster cells, relationship between several kinds of damage, *128*, 31
–, posttreatment of G2 phase CHO cells with Neurospora endonuclease, *140*, 111
Dimethyl sulphoxide, *130*, 102, 328; *133*, 106, 172, 177, 221; *134*, 72, 77; *138*, 161
–, alkaline elution of rat testicular DNA, *130*, 283
–, Chinese hamster ovary cells, *136*, 137
–, mouse germ cells, *126*, 279
–, pH variations, *130*, 103
–, RK test, validation, *130*, 107
–, with or without S9, human lymphocyte in vitro cytogenetic assay, positive and negative control observations, *141*, 59
3-(3,3-Dimethyl-1-triazenyl)pyridine 1-oxide, *134*, 75, 80
Dimethyl Yellow, *133*, 26, 33
Dinitrobenzoic acid, *137*, 75
Dinitrocresol, *137*, 75
2,7-Dinitrofluorene, *126*, 230
2,7-Dinitro-9-fluorenone, *126*, 230
2,4-Dinitro-1-methylbenzene, *133*, 29, 36
Dinitronaphthalene, *126*, 230
2,4-Dinitro-1-naphthol, *126*, 230
4,4′-Dinitrophenylcarbazide, *133*, 173, 178
2,4-Dinitrophenylhydrazine, *133*, 173, 178
2,4-Dinitrophenylthiocyanate, *131*, 105
Dinitropyrene, *126*, 230
–, pure, synthesis, abstract, *130*, 362
N,*N*′-Dinitroso-*N*,*N*′-dimethyloxamide, *133*, 221
N,*N*′-Dinitroso-*N*,*N*′-dimethylterephthalamide, *133*, 221
Dinitrosopentamethyl tetramine, *133*, 28, 35
Dinitrosopiperazine, *134*, 6, 73

Dinitrotoluene, *134*, 6; *137*, 75; *138*; 160
–, Salmonella, *136*, 209
Dinoseb, *133*, 221
Diol-epoxide, Chinese hamster ovary cells, *129*, 365
Dioxane, liver cancer in mouse or rat, *133*, 16
–, Salmonella, *136*, 169
Diphenhydramine, Salmonella, *135*, 105
Diphenylcarbazide, *133*, 173, 178; *134*; 161
Diphenylcarbazone, *133*, 173, 178
Diphenylhydantoin, *129*, 304
–, bone-marrow polychromatic erythrocytes of mice, *141*; 183
–, in vitro short-term tests, *137*, 79
1,2-Diphenyl hydrazine, *133*, 36
Diphenylnitrosamine, *125*, 299; *130*, 145; *133*, 10, 27, 34, 221
Diphtheria toxin and thioguanine resistance, by carcinogens, in diploid human fibroblasts, *125*, 95
Dipropylnitrosamine, *133*, 30, 37
Dipyrido[1,2-*a*:2′,3′-*d*]imidazoles, derivatives, comparative activity, abstract, *130*, 232
–, –, Salmonella, *136*, 23
Diquat, *133*, 221
Direct Black-38, *133*, 31, 38
Direct Blue-1, primary rat hepatocytes, *136*, 147
Direct Blue-14, primary rat hepatocytes, *136*, 147
Direct Brown-95, primary rat hepatocytes, *136*, 147
Direct Brown B, *136*, 35
Direct Brown 3GN, *136*, 35
Direct dye Black-38, *134*, 6
Direct Red-46, primary rat hepatocytes, *136*, 147
Disodium methanearsonate, *133*, 221
Disulfoton, *133*, 221
Dithane, *133*, 221
Dithiocarbamate pesticides, Propineb in mouse micronucleus test, *135*, 189
Dithranol, *133*, 218
DMBA-1N, rat and hamster assays, *136*, 258
DMBA-2N, rat and hamster assays, *136*, 258
DMSO, *see* Dimethyl sulphoxide
DNA, damaging agents, functionality and genetic toxicology, relationships, *133*, 51
–, degradation, by silicic acid, *141*, 1
–, ethylation, relationship to ethylation of haemoglobin, ethyl methanesulphonate in mouse, *127*, 1
–, polymerization and ligation, novobiocin-mediated inhibition, in vitro, *141*, 69
–, repair, biochemistry and genetic control, functionality and genetic toxicology of selected DNA-damaging agents, *133*, 62
–, –, capacity, differing, in *E.coli*, methodologies for determination of genetic effects, *125*, 153
–, –, error-prone, in yeast, possible inducibility, *129*, 3
–, –, kinetics, after low doses of X-rays, unwinding and nucleoid sedimentation methods, *131*, 19
–, –, specific and common steps, functionality and genetic toxicology of DNA-damaging agents, *133*, 68
DNA–ligase activities, appear normal in CHO mutant EM9, *131*, 209
Dodine, *133*, 221
Domatol, *133*, 221
Dominant lethal assay, alternative distributions of post-implantation death, *128*, 195
L-DOPA, Salmonella and *B.subtilis* strains, *137*, 17
Dopamine, Salmonella and *B.subtilis* strains, *137*, 17
Dose–response relationship, environmental chemicals, problem of thresholds, symposium on, *130*, 425
Dowpon, *133*, 221
Doxylamine, rat hepatocytes, *135*, 131
Dristan, *138*, 162
Drosophila melanogaster, adriamycin, *135*, 175
–, bioactivation and inactivation of mutagens, abstract, *130*, 226
–, chromosome breaks, mass isolation of deficiencies, *126*, 25
–, chromosome mutation tests, review, *134*, 61
–, description of tests, genetic basis, schemes and strains, *134*, 64
–, –, review, *134*, 64
–, –, suggested protocols for testing, *134*, 66
–, 7,12-dimethylbenz[*a*]anthracene and other aromatic mutagens, *125*, 243
–, DNA-repair-deficient mutants, somatic and germ line mutagenesis in UZ system, *141*, 29
–, effect of ascorbic acid, *133*, 139
–, endulsulfan, *136*, 115
–, ethyl methanesulphonate, *134*, 123
–, excision-repair-defective somatic cells, abstract, *130*, 198
–, fast assay with somatic cells, abstract, *130*, 211
–, increase of breakage and loss by fission neutrons, hyperthermia, *139*, 119
–, interpretation of test data, statistical evaluation and criteria for conclusion, *134*, 71
–, larvae, somatic cells, recombinogenic effects, abstract, *130*, 184
–, male recombination, *126*, 245
–, metabolic activation of aromatic amines and polycyclic hydrocarbons by fractions of, *125*, 229
–, mixed-function oxidase activities in Drosophila, effects of genotype and age, *139*, 51
–, mutagenic activities and doses of mutagens, abstract, *130*, 385
–, mutation tests, review, interpretation of data, *134*, 71
–, pteridines, direct or indirect action, lethal mutations, *128*, 147
–, review of tests, recommendations for research, development and validation, *134*, 85
–, sex-linked recessive lethal test, diallate and triallate herbicides, *136*, 173
–, spermatozoa, γ- and neutron-induced visible mutations, *127*, 123
–, test performance, *134*, 83
–, –, correlation with mammalian carcinogenicity data, *134*, 83
–, test review, role of assays in carcinogenicity testing programme, *134*, 85
–, –, strenghts and weaknesses of the assays, *134*, 84
–, *zeste* somatic eye mutation test, some intercalating agents, *138*, 169

Drugs, anti-inflammatory, non-steroidal, bacterial systems, *138*, 133
–, antineoplastic, mouse spermatogonia, *140*, 193
–, antirheumatic, genetic side effects, abstract, *130*, 255
–, hepatotoxic, comparative study, abstract, *130*, 253
–, pharmaceutical, abstracts of papers of EEMS 1983, *130*, 251
–, synergism, of antagonism, diploid meiotic products in *S.cerevisiae, 141*, 161
Dursban, *133*, 218
Dyes, azo, benzidine-congener-derived, rat hepatocytes, *136*, 147
–, –, and reduction products, rat and hamster assays, *136*, 255
–, benzidine-congener, modified Salmonella assay, *136*, 33
–, *E.coli* WP6, in the dark, *137*, 1

Ear, congenital anomalies, estimates of detriment, *128*, 82
Ectapur, *133*, 221
Eczema, facial, enzymatic repair of premutagenic DNA lesions in human epidermis, *131*, 184
Eczema pedis, enzymatic repair of premutagenic DNA lesions in human epidermis, *131*, 184
EDTA, *see* Ethylenediaminetetraacetate
Eldisine, SCE frequency in cultured CHO cells, abstract, *130*, 259
ELISA procedure, quantification of *N*-acetoxy-2-acetylaminofluorene/DNA adducts, *125*, 168
Ellipticine, *129*, 303, 305
Emodin, in HGPRT and SCE assay, V79 cells, *138*, 219
–, microsomal transformation into direct mutagens, *125*, 135
EMS, *125*, 294; *130*, 102, 144; *133*, 27, 34, 108, 222; *134*, 6, 72, 77, 157; *138*, 160
–, alkaline elution of rat testicular DNA, *130*, 283
–, assay for gene mutation in human lymphoblast line AHH-1, *128*, 221
–, chemical and physical properties, *134*, 114
–, Chinese hamster cells, *134*, 126
–, –, hyposensitive to, sister-chromatid exchanges, *129*, 181
–, –, relationship between several kinds of damage, *128*, 31
–, Chinese hamster primary cell cultures, *130*, 333
–, Chinese hamster, V79 cells, micronucleus assay compared with sister-chromatid exchange assay, *130*, 273
–, in cultured human blood lymphocytes, *129*, 283
–, detection of 7-ethylguanine and O^6-ethylguanine, in *E.coli* DNA, *125*, 166
–, DNA–ligase activities appear normal in CHO mutant EM9, *131*, 209
–, dominant lethals, translocations and gene mutations in germ cells, *134*, 130
–, Drosophila, *126*, 245; *134*, 123
–, –, molecular dosimetry, abstract, *130*, 173
–, –, *zeste* somatic eye mutation test, *138*, 169
–, gas, *138*, 161
–, genetic effects, in fungi, *134*, 119
–, –, in mammals, *134*, 130
–, –, in plants, *134*, 121
–, –, in prokaryotes, *134*, 118
–, human cells, *134*, 129
–, in insects, *134*, 123
–, interaction with DNA, *134*, 115
EMS, (*continued*)
–, mammalian cell culture, *134*, 126
–, mammalian spot test, *135*, 219
–, micronucleus test, *134*, 132
–, in mouse, *127*, 1
–, mouse and rat cells, *134*, 128
–, mutants resistant to 6-thioguanine, isolation and characterization, *129*, 269
–, *Oryzias latipes, 125*, 221
–, poly(ADP-ribose) metabolism, in Chinese hamster ovary cell EM9, *128*, 213
–, posttreatment of G2 phase CHO cells with Neurospora endonuclease, *140*, 111
–, prophage induction in *H.influenzae, 125*, 15
–, recovery of V79 cell clones in aminopterin- of azaserine-containing media, *126*, 273
–, review of genetic effects, *134*, 113
–, review of mutagenicity data, *134*, 117
–, RK test, validation, *130*, 107
–, Salmonella, *130*, 81
–, SCEs, human whole blood cultures and purified lymphocyte cultures, *130*, 403
–, sensitive mutant EM9 of CHO cell, apurinic/apyrimidinic endonuclease activities, *141*, 41
–, in situ microbial test system for airborne workplace mutagens, *130*, 45
–, sperm abnormalities, *134*, 131
–, spot test, *134*, 132
–, temperature-sensitive 6-thioguanine-resistant mutants in Chinese hamster ovary cells, *139*, 95
–, and 12-*O*-tetradecanoylphorbol 13-acetate, Chinese hamster ovary cells, *129*, 119
–, 6-thioguanine resistance in V79 cells, soft agar technique, *125*, 105
–, in UV-sensitive human clonal cell line, *125*, 55
–, viruses, *134*, 117
–, in yeast, fitness of genotypes, *129*, 327
Endonuclease, activities apurinic/apyrimidinic, CHO EM9 mutant, *141*, 41
–, of *N.crassa*, posttreatment of G2 phase CHO cells with, *140*, 111
Endosulphan, *134*, 6
–, *D.melanogaster, 136*, 115
Endralazine mesilate, *133*, 173, 178
Endrin, *133*, 27, 34, 221; *134*, 6
Enheptin, *133*, 29, 36
Entero-Vioform, *133*, 106
Environmental chemicals, dose–response relationship, problem of thresholds, symposium on, *130*, 425
Environmental Mutagen Society, European, abstracts of papers of 1983, *130*, 165
–, –, councillors, Local Activity Reports for 1983, *130*, 305
–, Japanese, 12th Annual Meeting, papers presented at, abstract, *130*, 361
Environmental mutagenesis, and carcinogenesis, test method development, validation and utilization, *130*, 353
Environmental nitroarenes, structural requirements for mutagenicity, *126*, 227
Enzymes, characterization of polynuclear aromatic hydrocarbons activating rat-liver preparations, *125*, 123

Enzymically generated active oxygen species, Chinese hamster ovary cells, *126*, 265
Eosin Y, *133*, 221
Epibromohydrin, *133*, 106
Epichlorohydrin, *130*, 327; *133*, 28, 35, 106, 171, 176; *134*, 6, 103–106
–, Chinese hamster ovary cells, *136*, 137
–, metabolic activation by S12 preparations of human lung, *139*, 9
Epidemiological relationships, of ascorbic acid, *133*, 153
Epilepsy, anti-drug, carbamazepine, *139*, 83
–, mutagenicity of phenytoin, primidone and phenobarbital, *138*, 71
Epoxides, including precursors and metabolites, Ames reversion test and a bacterial DNA-repair test, *133*, 189
Epoxide hydrolase, enzymatic characterization of polynuclear hydrocarbons activating rat-liver preparations, *125*, 123
Epoxybutane, *130*, 327; *133*, 171, 176, 221
1-Epoxyethyl-3,4-epoxycyclohexane, *133*, 28, 35
2,3-Epoxy-1-propanol, *133*, 171, 176
Eptam, *133*, 106
Eradicane, *136*, 234
Erythropoietin, *134*, 75
Erythrosine, *133*, 221
–, in yeast, *138*, 153
Escherichia coli, acrylonitrile, *134*, 52
–, antimutagenic factors, abstract, *130*, 383
–, and bacteriophage T4 particles refractory to bisulphite mutagenesis, *129*, 149
–, binding of *recA* product to nucleic acids, abstract, *130*, 196
–, γ-radiation, presence of radiosensitizers, abstract, *130*, 219
–, γ- and UV-irradiation, *umuC*-dependent and -independent mutagenesis, *128*, 1
–, detection and quantification of 7-ethylguanine and O^6-ethylguanine in DNA after treatment, *125*, 166
–, 2-(2′,4′-diaminophenoxy)ethanol, *135*, 31
–, differing in UV sensitivity, 365-nm radiation and far-UV light, *126*, 1
–, DNA damage by azaserine, *129*, 153
–, DNA-repair assay, 6-billion-fold range of genotoxic potency, abstracts, *130*, 207
–, DNA-repair-proficient strain, acridines in plate tests, *131*, 193
–, DNA-repair test, 135 compounds, review, *133*, 161
–, –, study of 135 compounds, table, *133*, 175
–, effect of L-ethionine on expressions of SOS system, *129*, 319
–, effect of R-factor plasmid pKM101 on damage by UV and chemical mutagens, *141*, 135
–, excision repair and Weigle reactivation of UV-irradiated ΦX174 double-stranded DNA, *131*, 1
–, extracts, absence of pyrimidine insertase activity, use of plasmid DNA containing apyrimidinic sites, *132*, 87
–, human fibroblast interferon, *139*, 183
–, induction by UV of SOS function *sfiA* abstract, *130*, 202
–, influence of gene *recF* on spontaneous mutation, *140*, 67
–, low doses of ethylene oxide, *139*, 167
–, 'Malti-Towa' (powder) and maltitol crystal, *137*, 133
–, *N*-methyl-*N*′-nitro-*N*-nitrosoguanidine, and mitomycin C, SOS expression, *132*, 15
Escherichia coli, (*continued*)
–, mismatch repair, abstract, *130*, 166
–, mutants, resistance to nitrofurantoin and UV, by R-plasmid from clinical isolate *139*, 5
–, 4-nitroquinoline-*N*-oxide and mitomycin C, low concentrations, *126*, 121
–, nitrosocimetidine, adaptive response to alkylating agents, *139*, 111
–, non-steroidal anti-inflammatory drugs, *138*, 133
–, novobiocin-mediated inhibition of polymerization and ligation of DNA in vitro, *141*, 69
–, prophage induction, *125*, 15
–, quantification of *N*-acetoxy-2-acetylaminofluorene/DNA adducts, ELISA procedure, *125*, 168
–, RK bacterial test, *130*, 97
–, signal of induction of *recA* protein, *131*, 53
–, SOS-function-inducing activity of chemical mutagens, *131*, 101
–, survival of plasmids with localized carcinogen adducts, *126*, 127
–, *umu*$^+$-encoded function, and plasmid R46-mediated error-prone repair in damaged cells, *139*, 101
–, urinary inducing activity of SOS functions, chromotest, abstract, *130*, 213
–, UV-excision-defective, repair of 8-methoxypsoralen cross-links, *132*, 153
–, UV-irradiation alters deoxynucleoside triphosphate pools, *131*, 97
–, 343/113, factors influencing reproducibility tests, abstract, *130*, 218
–, B/r, UV mutagenesis at cloned target sequence, *132*, 143
–, CM891, pretreatment with ehtylene-diaminetetraacetate, sensitivity to standard mutagens, *140*, 13
–, GY5027, 5-nitro-2-furamide derivatives, *140*, 169
–, K12, Crystal Violet, *140*, 165
–, –, differing in repair capacity methodologies for determination of genetic effects, *125*, 153
–, –, –, –, animal-mediated assays, *125*, 176
–, –, –, –, DNA dosimetry, *125*, 165
–, –, –, –, genetic end-points, *125*, 161
–, –, –, –, in vitro genetic test procedures, *125*, 170
–, –, inductest, potential chemical carcinogens, evaluation, *130*, 141
–, –, respiration shutoff by far-UV and mitomycin C, *139*, 107
–, –, UV-irradiated, occurrence and loss of alkali-labile sites in newly synthesized DNA, *132*, 79
–, –, 343/113 and derived strains, microbial assays, *130*, 87
–, *lacI* gene, metal-induced mutagenesis, *126*, 9
–, *recA*, multicopy *phr* plasmid, increase of UV resistance, *131*, 11
–, WP6, Acridine Orange and Methylene Blue, in the dark, *137*, 1
–, WP2, *uvrA*/pKM101, saturated fatty acids and *N*-nitrosodimethylamine, *135*, 87
1,2-Ethanediol diacrylate, *137*, 97
1,2-Ethanediol dimethacrylate, *137*, 97
Ethanol, *129*, 305; *130*, 102; *133*, 106, 172, 177; *134*, 160; *138*, 160
–, alternative distributions of post-implantation death, dominant-lethal assay, *128*, 198, 200
–, in *A.nidulans*, *135*, 53

Ethanol, (*continued*)
–, Chinese hamster V79 cells, micronucleus compared with sister-chromatid exchange assay, *130*, 273
–, influence as fuel component on genetic toxicity of gasoline exhaust, abstract, *130*, 236
–, with or without S9, human lymphocyte in vitro cytogenetic assay, positive and negative control observations, *141*, 59
Ether gas, *138*, 161
Ethidium, analogues, in *S.cerevisiae*, petite induction, *127*, 15
Ethidium azide, Salmonella, *127*, 31
Ethidium bromide, *125*, 299, 300; *130*, 144; *131*, 105; *133*, 221
–, burdock, *129*, 25
–, Drosophila, *126*, 245
–, –, *zeste* somatic eye mutation test, *138*, 169
–, petite and sectored induction in *S.cerevisiae*, *126*, 145
–, screening of 3-methylcholanthrene- and phenobarbital-like chemical inducers of cytochrome P-450 monooxygenases, *129*, 299
Ethidium diazide, *133*, 222
Ethidium monoazide, *133*, 222
Ethion, *133*, 222
Ethionine, *130*, 145; *133*, 222
DL-Ethionine, *133*, 106
L-Ethionine, *134*, 6
–, effect on expression of SOS system in *E.coli*, *129*, 319
–, and mitomycin C, human lymphocytes, liquid-holding recovery, *128*, 153
8-Ethoxycaffeine, Drosophila, *126*, 245
Ethoxycoumarin, enzymatic characterization of polynuclear hydrocarbons activating rat-liver preparation, *125*, 123
–, mixed-function oxidase activities in adult Drosophila, *139*, 51
7-Ethoxycoumarin *O*-deethylase, influence of NADPH-generating system on microsomal mono-oxygenase stability, *129*, 291
Ethoxyquin, antimutagenic effects on male germ cells of mice, *140*, 127
–, – in mammals, *135*, 125
–, in vivo demonstration of antimutagenic effects, abstract, *130*, 173
Ethoxyresorufin-*O*-dealkylase, enzymatic characterization of polynuclear hydrocarbons activating rat-liver preparations, *125*, 123
Ethyl acrylate, *137*, 96
–, in mouse micronucleus test, *135*, 189
Ethyl alcohol, *see* Ethanol
Ethylating agents, in *E.coli*, V79 cells and mice, abstract, *130*, 174
Ethyl carbamate, *130*, 102; *133*, 236
–, rodent species, *126*, 159
3-(Ethyl-2-chloroethyl)-aminopropylamine dihydrochloride, *133*, 106
Ethylchrysanthemate, *133*, 223
5-Ethyl-2′-deoxyuridine, *134*, 75
1,1′-Ethylenebis-3-(2-chloroethyl)-3-nitrosourea, *133*, 223
Ethylenediaminetetraacetate, disodium, *138*, 161
–, pretreatment of *E.coli* CM891, sensitivity to standard mutagens, *140*, 13
–, trisodium, *133*, 29, 36
Ethylene dibromide, *130*, 102; *133*, 106; *134*, 157; *138*, 160
–, paternal exposure, effect on F_1 generation behaviour in rat, *139*, 133
–, vapour, human peripheral lymphocytes, *138*, 93
Ethylene glycol, *133*, 106; *134*, 78
Ethylene oxide, *133*, 108; *134*, 73, 100, 104–106, 157
–, damage in workers exposed to, *138*, 185
–, in *E.coli*, low doses, *139*, 167
–, exposed workers, sister-chromatid exchanges, 129, 77, 89
–, inhalation, specific-locus mutation rates, mouse, *129*, 381
Ethylenethiourea, *133*, 10, 18, 19, 28, 35
Ethylenimine, *133*, 29, 36, 108, 223; *134*, 6, 73
Ethyl ether, *133*, 172, 177
7-Ethylguanine, detection and quantification, in *E.coli* DNA after treatment, *125*, 166
O^6-Ethylguanine, detection and quantification, in *E.coli* DNA after treatment, *125*, 166
–, Syrian hamster embryo cells, abstract, *130*, 182
Ethyl *N*-hydroxycarbamate, rodent species, *126*, 159
Ethyl methacrylate, *137*, 96
Ethyl methanesulphonate, *see* EMS
N-Ethyl-*N*′-nitro-*N*-nitrosoguanidine, *130*, 102; *131*, 105
–, Chinese hamster ovary cells, molecular dosimetry, *132*, 41
Ethylnitrosamine, *133*, 11, 32, 39
Ethyl nitrosourea, *131*, 105; *133*, 30, 37, 108, 222; *134*, 157
–, alkaline elution of rat testicular DNA, *130*, 283
–, Chinese hamster cells, relationship between several kinds of damage, *128*, 31
–, in cultured human blood lymphocytes, *129*, 283
–, detection of 7-ethylguanine and O^6-ethylguanine in *E.coli* DNA, *125*, 166
–, in diploid human fibroblasts, diphtheria toxin and thioguanine resistance, *125*, 95
–, dominant skeletal mutations in mouse, non-breeding-test methods, *127*, 93
–, in Drosophila spermatozoa and spermatogonia, abstract, *130*, 385
–, enzyme activity mutants, dose–response relationship, abstract, *130*, 167
–, heritable translocations in mouse, abstract, *130*, 175
–, mammalian spot test, *135*, 219
–, mouse germ cells, histocompatibility gene mutation, *126*, 279
–, in *N.crassa* spheroplasts, *125*, 43
–, non-breeding-test methods for dominant skeletal mutations, *127*, 189, 191
–, posttreatment of G2 phase CHO cells with Neurospora endonuclease, *140*, 111
–, responses to damage in human cells, abstract, *130*, 194
–, V79 cells, negative evidence for adaptive response, *129*, 243
N-Ethylnitrosourethane, *133*, 223
Ethylparathion, *133*, 10, 26, 33
Ethylphenylglycidate, Salmonella and mouse tests, *138*, 1
Ethyl-*p*-toluenesulphonate, *133*, 222
Ethynyloestradiol, *130*, 145; *133*, 10, 18, 19, 26, 33
Eugenol, mouse micronucleus test, pilot experiment, *141*, 167
European Environmental Mutagen Society, 1983, abstracts of papers, *130*, 165
–, councillors, Local Activity Reports for 1983, *130*, 305

Evans Blue, *136*, 35
–, rat and hamster assays, *136*, 258
Ewes, and their newborn lambs, sister-chromatid exchange in cultured lymphocytes, *140*, 117
Excision repair, UV-irradiated ΦX174 double-stranded DNA, Weigle reactivation, *131*, 1
Exedrin PM, *138*, 162
Explosives, nitroaromatic, and related compounds, *Salmonella typhimurium, 136*, 209
Eye, congenital anomalies, estimates of detriment, *128*, 82

Face, congenital anomalies, estimates of detriment, *128*, 82
Faeces, mutagens, and intestinal tumours, in dimethylhydrazine-injected rat, *139*, 143
–, –, from subjects consuming mixed-western diet, *135*, 11
Faneron, *133*, 223
FANFT, *133*, 223
Fast Green FCF, *133*, 31, 38, 223
Fast Red E, *133*, 223
Fatty acids, saturated, and *N*-nitrosodimethylamine, inhibitory effect, *135*, 87
Federal Republic of Germany, Local Activity Report 1983 EEMS, *130*, 307
Fenaminosulf, *134*, 6
Fensulfothion, *133*, 223
Fenthion, *133*, 10, 26, 33, 223
Fenvalerate, in Salmonella and V79 cells, *137*, 7
Ferula foetida, safoetida, in mouse, *136*, 85
Finland, Local Activity Report 1983 EEMS, *130*, 306
Fish products, mutagens in canned foods, *141*, 131
Fission neutrons, or ^{60}Co γ-rays, low doses, hybrid male mouse, *129*, 215
Flagyl, *133*, 228
Flavone, *135*, 81
Flavones, in Salmonella, *135*, 77
Flavonoid-containing beverages, DNA-damaging activity, abstract, *130*, 243
Flavonols, mutagenic properties of wine, abstract, *130*, 238
Flufenamic acid, bacterial systems, *138*, 133
Fluoranthene, *130*, 327
2-Fluorenamine, *130*, 54, 56, 57, 59; *133*, 223
Fluorene, *125*, 300; *130*, 144
Fluorenylacetamide, *130*, 54, 56–59
N-4-Fluorenylacetamide, *133*, 223
N-OH-2-Fluorenylacetamide, *130*, 54, 57
5-Fluorodeoxyuridine, *133*, 223; *134*, 76
1-Fluoro-2,4-dinitrobenzene, *133*, 223
Fluoro-DMBA, human hepatoma cell-mediated assay, *136*, 65
9-Fluoroellipticine, *129*, 303, 305
p-Fluorophenylalanine, *133*, 108, 223
β-Fluoropyruvic acid, *133*, 108
5-Fluorouracil, *133*, 108
–, alternative distributions of post-implantation death, dominant-lethal assay, *128*, 199, 201
–, deoxyriboside, *133*, 108
Flurenol, *133*, 223
FM3A cell system, various compounds, abstract, *130*, 371
Foetal calf serum, medium lacking antibiotics and, cultured human lymphocytes, *129*, 207
Folic acid, *138*, 162
Folpet, *133*, 171, 177, 223
Fonofos, *133*, 223
Food, additives, antimutagenic activity, abstract, *130*, 369
–, –, natural, survey on mutagenesis, abstract, *130*, 383
–, canned, occurrence of mutagens, *141*, 131
–, Japanese meals, mutagenicity, abstract, *130*, 371
Formaldehyde, *130*, 327; *133*, 26, 33, 108, 172, 177, 223; *134*, 72, 160
–, aberrations in pathology staff occupationally exposed, *141*, 89
–, autopsy service workers, *130*, 417
–, fumes, *138*, 161
–, in *Pleurodeles waltl, 125*, 275
–, sodium sulphoxylate, *134*, 73
2-Formylamino-4-(5-nitro-2-furyl)thiazole, *133*, 108
N-Formyl-4-chloro-*o*-toluidine, mammalian spot test, *135*, 219
Fossil-fueled, and nuclear-power plants, aberrations in employees, *138*, 205
France, Local Activity Report 1983 EEMS, *130*, 307
Frog, cells, ICR-2A, γ-rays and UV, *139*, 35
Fuchsin, *133*, 30, 37
Fulvine, *134*, 75
Fungi, ethyl methanesulphonate, *134*, 119
Furaltadone, *133*, 29, 36
Furan, derivatives, new, microbial mutagenicity, abstract, *130*, 254
Furapromidium, *133*, 223
Furazolidone, *131*, 105
Furocoumarins, in the dark, frameshifts in Salmonella, *136*, 49
–, frameshift mutagenesis in the dark, abstract, *130*, 181
–, human skin fibroblast cells in culture, abstract, *130*, 251
–, monofunctional, and bifunctional, mammalian cell systems, abstract, *130*, 193
–, photoaddition, in yeast, repair of monoadducts, abstract, *130*, 200
–, photoinduced in *S.cerevisiae*, abstract, *130*, 195
Furosemide, *133*, 225
Furylfuramide, *131*, 105; *133*, 213; *134*, 6
2-(2-Furyl)-3-(nitrofuryl)acrylamide, *133*, 108
–, in burdock, desmutagenic factor, *129*, 25
–, in *E.coli*, effect of R-factor plasmid pKM101, *141*, 135

Gallic acid, *135*, 111
Gammaphos, protection against radiation in male mouse, *140*, 131
Garlic, in mouse, *136*, 85
Gatnon, *133*, 214
Gene, *recF*, influence on spontaneous mutation in *E.coli, 140*, 67
Genetic drift, Ames test, international collaborative study, *130*, 1, 11, 27
Genetic risk assessment, evaluation of mutagenicity assays, *134*, 143
Genetic toxicology, suggestions for preserving its continued vitality, *130*, 389
Genital organs, congenital anomalies, estimates of detriment, *128*, 90

Genomes, radiation-mutated proviral, neoplastic cell transformation, *130*, 189
Genotoxicity, use of terms, Letter to Editor, *132*, 139, 141
Genotoxins, of low water solubility, in SCE assay, *139*, 207
Gentamycin, *133*, 224
–, pretreatment of *E.coli* CM891 with ethylenediaminetetraacetate, *140*, 13
Geritol, *138*, 162
Germanium oxide, antimutagenicity, Trp-P2-induced frameshift in Salmonella, *125*, 145
Gesapax, *133*, 224
Gesaprim, *133*, 213
Gesatop, *133*, 233
6-Gingerol, abstract, *130*, 372
Glucose, alternative distributions of post-implantation death, dominant-lethal assay, *128*, 198–201
–, creatinine and glycine, heating, formation of 2-amino-3,8-dimethylimidazo[4,5-*f*]quinoxaline, *126*, 239
–, – –, – formation of 2-amino-3,7,8-trimethylimidazo[4,5-*f*]quinoxaline, *140*, 55
–, 6-phosphate dehydrogenase, influence of NADPH-generating system on microsomal mono-oxygenase stability, *129*, 291
–, syrups, 'Malti-Towa' and maltitol crystal, bacterial reversion assay and micronucleus test, *137*, 133
D-Glucose, *130*, 103
Glu-P-1, adsorption by vegetable fibres, *141*, 149
Glutamic acid, Salmonella, *136*, 217
Glutathione, and catecholamines, in Salmonella and *B.subtilis* strains, *137*, 17
–, effect on tryptophan pyrolysis products by S9 fraction, *139*, 15
–, level, reduced, hepatoma in mice by feeding high level dose of sorbic acid, *130*, 267
–, oxidized, effect on synthesis of lens crystallins, abstract, *130*, 209
–, reduced, converts Na_2SeO_3 to its SCE-inducing form, *141*, 49
Glutethemide, *134*, 78
Glycidaldehyde, *133*, 30, 37, 224
Glycidol, *130*, 144, 145; *133*, 108, 171, 176, 224
Glycidylmethylaniline, CHO cells, *135*, 159
Glycine, creatinine and glucose, heating, formation of 2-amino-3,8-dimethylimidazo[4,5-*f*]quinoxaline, *126*, 239
–, –, –, formation of 2-amino-3,7,8-trimethylimidazo-[4,5-*f*]quinoxaline, *140*, 55
Glycosides, alimentary, oncogenicity, use of faecalase in system of amniotic human cells growing in soft agar medium, abstract, *130*, 215
Golden hamster, ethyl carbamate, ethyl *N*-hydroxycarbamate and vinyl carbamate, *126*, 159
Gorilla gorilla, karyotypes most similar to those of man, diagrammatic representation, *126*, 90
Grass-wrack pondweed, water extract, desmutagenic substance, *129*, 33
Greece, Local Activity Report 1983 EEMS, *130*, 308
Griseofulvin, *129*, 303, 305; *133*, 10, 29, 36, 224; *134*, 6
–, in mouse sister-chromatid exchanges in vivo, *137*, 111
Growth hormone, human, in Snell dwarf mice and CHO cells, *127*, 61
Guinea Green B, *133*, 31, 38
Guinea pig, isolated hepatocytes and liver supernatant, mutagenicity of benzidine and 4-aminobiphenyl, *129*, 13
–, urine, *N*-[4-(5-nitro-2-furyl)-2-thiazolyl]-formamide of 2-amino-4-(5-nitro-2-furyl)thiazole, *135*, 169
Guthion, *133*, 213

H-193, *133*, 225
Haemoglobin, ethylation, relationship to ethylation of DNA, ethyl methanesulphonate in mouse, *127*, 1
Haemophilus influenzae, prophage induction, chemical and physical agents, *125*, 15
Haemophilus parainfluenzae, restriction sequence, site-directed mutagenesis, abstract, *130*, 172
Hair dye, 2-(2′,4′-diaminophenoxy)ethanol, Salmonella, *135*, 31, 49
–, mahogany (no CASRN), *133*, 224
Halogenated aliphatic hydrocarbons, in *A.nidulans*, somatic segregation, *138*, 33
Haloprogin, *133*, 108
Halothane, *133*, 224
Ham, mutagens in canned foods, *141*, 131
Hamster, baby, kidney cells, adenosine kinase mutation, increased sensitivity to adenosine, *129*, 397
–, cells, cultured, nature of mutants by ionizing radiation, *129*, 269
–, hepatocyte primary culture/DNA-repair assays, azo dyes and their reduction products, *136*, 255
–, isolated hepatocytes and liver supernatant, mutagenicity of benzidine and 4-aminobiphenyl, *129*, 13
–, urine, *N*-[4-(5-nitro-2-furyl)-2-thiazolyl]-formamide or 2-amino-4-(5-nitro-2-furyl)thiazole, *135*, 169
Heat, enhanced reactivation of UV-irradiated adenovirus 2, *139*, 173
–, processed foods, occurrence of mutagens, *141*, 131
Heating, a mixture of creatinine, glucose and glycine, formation of 2-amino-3,7,8-trimethylimidazo[4,5-*f*]quinoxaline, *140*, 55
HeLa cells, enhanced mutagenesis, and heat-enhanced reactivation of UV-irradiated adenovirus 2, *139*, 173
Heliothis virescens, radiosensitivity, *127*, 49
Heliotrine, *134*, 73, 79
Hepatoma, in mouse, by feeding on a high level dose of sorbic acid, depletion of reduced glutathione level, *130*, 267
Heptachlor, *133*, 10, 27, 34
Herbicide, bipyridylium, in nitrogen-fixing *N. muscorum*, *138*, 39
–, commercial mixture, genetic and cytogenetic effects in mice, abstract, *130*, 245
–, diallate and triallate, battery of in vitro and in vivo tests, *136*, 173
–, microbial short-term test systems, abstract, *130*, 244
–, plant and animal activation, *136*, 233
Heterocycles, miscellaneous, Ames reversion test and a bacterial DNA-repair test, *133*, 190
–, and nitro aromatics, Ames reversion test and a bacterial DNA-repair test, *133*, 187

2,2,4,4,6,6-Hexa(1-aziridinyl)-2,4,6-triphospho-1,3,5-triazine, *133*, 102
Hexachlorobutadiene, Salmonella, *137*, 89
Hexachloroethane, *133*, 224; *134*, 6
3a,4,5,6,7,7a-Hexahydro-3-(1-methyl-5-nitro-1*H*-imidazol-2-yl)-1,2-benzisoxazole, and deactivation of nitrofurans and nitroimidazoles, Ames test, *136*, 1
Hexametapol, *133*, 30, 37
1,1′-Hexamethylenebis-3-(2-chloroethyl)-3-nitrosourea, *133*, 224
Hexamethylphosphoramide, *134*, 74
–, *D.melanogaster,* molecular dosimetry, abstract, *130*, 173
1,6-Hexanediol diacrylate, *137*, 97
1,6-Hexanediol dimethacrylate, *137*, 97
2,2,4,4,6,6-Hexanitrodiphenylamine, Salmonella, *136*, 209
Hexobarbital, *129*, 304
n-Hexyl acrylate, *137*, 96
n-Hexyl methacrylate, *137*, 96
HGPRT assay, UV mutagenesis in mouse lymphoma cells, *129*, 259
HGPRT locus, in human epithelial teratoma cells, chemical agents, *130*, 127
Histidine, characterization of methyl methanesulphonate-sensitive mutants of *N.crassa, 125*, 185
–, independence, influence of *recF* on spontaneous mutation in *E.coli, 140*, 67
Histocompatibility, gene mutations, germ cells of mouse, *126*, 279
Homo sapiens, karyotypes most similar to those of, diagrammatic representation, *126*, 90
Hormones, hormone-modifying substances and non-hormonal steroids, genotoxic and non-genotoxic carcinogens, *133*, 18
–, human growth, in Snell dwarf mice and CHO cells, *127*, 61
Horse serum, 10%, in cloning $TK^{-/-}$ mutants of mouse lymphoma cells, *140*, 215
Housefly, radiosensitivity, *127*, 49
HPLC, fractions, from wood-stove emission samples, Salmonella, abstract, *130*, 231
Human, amnion FL cells, caramel, *139*, 161
–, B lymphocytes, multifactorial transformation, in vitro, abstract, *130*, 187
–, blood cultures, sister-chromatid exchange by sodium selenite, *141*, 49
–, blood lymphocytes, cultured, 6TG-resistant mutants and sister-chromatid exchanges, *129*, 283
–, –, 6TG-resistant, X-irradiation, T-cell cloning technique, *125*, 87
–, bone marrow cells, micronuclei, leukaemia patients, *130*, 113
–, carcinogens, suspected, analysis of spectra of genetic activity, *134*, 89
–, cells, ethyl methanesulphonate, *134*, 129
–, –, hydroxyurea, role of deoxynucleoside triphosphate pools, *131*, 163
–, –, O^6-methylguanine–DNA methyltransferase, *131*, 27
–, –, mutagenesis of bacterial gene, EC*ogpt*, abstract, *130*, 168
–, clonal cell line, UV-sensitive, UV-resistant mutant without increased repair synthesis activity, *125*, 55
–, diploid cells, demonstration of UV-type and ionizing radiation-type DNA repair by nucleoid sedimentation technique, *131*, 137
Human, (*continued*)
–, diploid fibroblasts, cultured, sodium fluoride, *139*, 193
–, –, use of low temperature for growth arrest and synchronization, *130*, 343
–, diploid B-lymphoblastoid line, far-UV, *128*, 47
–, epidermis, enzymatic repair of premutagenic DNA lesions, *131*, 183
–, epithelial teratoma cells, chemical agents, *130*, 127
–, faecal fractions, nuclear damage in colonic epithelial cells of mouse, *141*, 35
–, fibroblasts, Bloom syndrome, mitomycin C, *131*, 223
–, –, cultured, aromatic amines, metabolic activation of prostaglandin synthase, *127*, 107
–, –, –, chemical mutagens, *129*, 129
–, –, diploid, diphtheria toxin and thioguanine resistance, carcinogens, *125*, 95
–, –, excision repair, UV-induced unscheduled DNA synthesis, *132*, 101
–, –, host-cell reactivation of *cis*-diamminedichloroplatinum(II)-treated SV40 DNA, *132*, 181
–, –, interferon, in *S.typhimurium* and *E.coli, 139*, 183
–, –, normal, cultured, formation and removal of benzo[*a*]pyrene metabolites–DNA adducts, *131*, 157
–, –, –, repair-inhibited, damage by Neurospora endonuclease, *129*, 359
–, –, patients with retinoblastoma, UV and mitomycin C, *141*, 101
–, –, sister-chromatid assay, cresols, *137*, 51
–, –, SV-40 transformed, evaluation as model of ataxia telangiectasia in vitro, *140*, 219
–, –, UV-induced cytotoxicity, abstract, *130*, 191
–, –, UV-induced DNA excision repair, kinetics, *132*, 129
–, genetic risk, specific-locus mutation rates in mouse following inhalation of ethylene oxide, and estimation of, *129*, 381
–, growth hormone, in Snell dwarf mice and CHO cells, *127*, 61
–, hepatoma, cell-mediated assay, methyl- and fluoro-substituted derivatives of polycyclic aromatic hydrocarbons, *136*, 65
–, KB cells, lack of effect of 4-nitroquinoline 1-oxide on cellular NAD levels, *139*, 155
–, leucocyte cultures, vincristine, *138*, 55
–, liver microsomes, activation of mutagens in cooked ground beef, *140*, 61
–, lung parenchyma and bronchial tree, preparations, metabolic activation and deactivation, *139*, 9
–, lymphoblast line, AHH-1, competent for xenobiotic metabolism, assay for gene mutation, *128*, 221
–, lymphoblastoids, of ataxia telangiectasia patients, gene dosage and complementation analysis, *129*, 165
–, –, nitrogen mustard, differential sensitivity, *132*, 63
–, –, NL3, antagonizing effect of 3-aminoharman, *129*, 63
–, –, monochromatic UV radiation in solar range, *129*, 103
–, lymphocytes, *N*-acetoxy-2-acetylaminofluorene and ethylene oxide, *129*, 71
–, –, assay, cyclophosphamide metabolic activation by S9, low cytotoxicity, *130*, 221, 411

Human, lymphocytes, (*continued*)
–, –, biological monitoring of workers in rubber industry, *138*, 99, 105
–, –, cultures, aberrations in pathology staff occupationally exposed to formaldehyde, *141*, 89
–, –, –, action of anticlastogens, modification by rat liver S9 mix, *129*, 195
–, –, –, Aldicarb, *138*, 175
–, –, –, 5-bromodeoxyuridine, alterations in baseline sister-chromatid exchange frequency, *127*, 149
–, –, –, medium lacking foetal calf serum and antibiotics, *129*, 207
–, –, –, methotrexate, *139*, 67
–, –, different sister-chromatid exchange-inducing effects of nitrogen mustard and methyl methanesulphonate, *139*, 71
–, –, *r*-7,*t*-8-dihydroxy-*t*-9,10-epoxy-7,8,9,10-tetrahydrobenzo-[*a*]pyrene, low-density lipoproteins requirement, *131*, 37
–, –, diphenylhydantoin and major metabolite, *137*, 79
–, –, distribution of sister-chromatid exchanges, *125*, 263
–, –, G_0 and G_1, MMC-induced SCEs, effect of L-ethionine, liquid-holding recovery, *128*, 153
–, –, improved micronuclear assay, *139*, 61
–, –, influence of caffeine and 3-aminobenzamide in G_2 on aberrations, *126*, 251
–, –, micronucleus assay, γ-irradiation and bleomycin, *130*, 395
–, –, repair of SCE-inducing damage, abstract, *130*, 199
–, –, S-phase, γ-irradiation, chromatid exchanges, *129*, 173
–, –, of systemic lupus erythematosus patients, SCE frequencies, *128*, 167
–, –, therapeutic ultrasound, in vitro and in vivo, *138*, 75
–, –, very low doses of X-rays combined with inhibitors of DNA synthesis, *141*, 45
–, –, in vitro cytogenetic assay, positive and negative control observations, *141*, 59
–, –, X- and UV-irradiation, *140*, 223
–, normal cells, and xeroderma pigmentosum cells, rate of removal of pyrimidine dimers, *132*, 21
–, oral keratinocytes, cultured, unscheduled DNA synthesis by sodium fluoride, *140*, 43
–, peripheral lymphocytes, cyclophosphamide, *129*, 47
–, –, ethylene dibromide vapour, *138*, 93
–, –, liquid-holding experiments, *128*, 59
–, –, mitogen-stimulated, resistance to 6-thioguanine, *139*, 41
–, –, of poliomyelitis patients, aberrations and SCEs, *141*, 55
–, –, sister chromatid exchanges, and smoking, *138*, 197
–, –, 2,4,7-trinitro-9-fluorenone, *138*, 181
–, risk assessment, implications, mechanisms of action of non-genotoxic carcinogens, *133*, 22
–, skin fibroblasts, aphidicolin and araC/HU, after UV, *131*, 187
–, –, photoaddition of two new monofunctional pyridopsoralens, *138*, 63
–, tumour cell strains, Mer^-, relationship with methyl purines by MNNG in adenovirus-5 DNA, *131*, 45
–, whole blood cultures, and purified lymphocyte cultures, effect of S9, difference in SCEs, *130*, 403
Hungary, Local Activity Report 1983 EEMS, *130*, 308
Hybrid, formation, recombinational in X-irradiated mammalian cells, *132*, 113
Hycanthone, *125*, 294; *133*; 108, 224; *134*, 6, 157
–, Chinese hamster ovary cells, *136*, 137
Hycanthone methanesulphonate, *133*, 32, 39, 224; *134*, 6, 75
Hydralazine · HCl, *133*, 173, 178
Hydrazine, *133*, 29, 36
–, derivatives, Ames reversion test and a bacterial DNA-repair test, *133*, 191
–, dihydrochloride, *133*, 224
–, –, Salmonella, in vivo and in vitro biotransformation, *137*, 61
–, 1,2-diphenyl, *133*, 29
–, hydrate, *133*, 173, 178
–, microbial mutagenicity, letter to the Editor, *136*, 89, 91
–, prophage induction in *H.influenzae, 125*, 15
–, sulphate, *133*, 224; *134*, 6
–, –, posttreatment of G2 phase CHO cells with Neurospora endonuclease, *140*, 111
–, *V.faba, 140*, 123
Hydrazoic acid gas, *138*, 161
Hydrocarbons, aliphatic halogenated, volatile Salmonella mutagens, *136*, 55
Hydrochlorothiazide, Salmonella, *135*, 105
Hydrogen peroxide, *133*, 108; *134*, 160
–, activation of benzidine to mutagenic species, *141*, 23
–, alkaline elution technique, abstract, *130*, 366
–, human whole blood cultures and purified lymphocyte cultures, *130*, 403
–, mechanism of actions, abstract, *130*, 377
–, protection by catalase induction in Salmonella, *141*, 145
–, Salmonella, *130*, 81
N-Hydroxy-2-acetylaminofluorene, *133*, 110; *134*, 6
N-Hydroxy-*N*-acetyl-2-aminofluorene, metabolic activation of Drosophila fractions, *125*, 229
N-Hydroxy-*N*-acetyl-1-aminopyrene, activation by rat liver S9 and bacterial enzymes, *138*, 113
N-Hydroxy-4-aminoazobenzene · HCl, *133*, 170, 175
N-Hydroxy-2-aminofluorene, Salmonella, *131*, 89
3-Hydroxyamino-1-methyl-5*H*-pyrido[4,3-*b*]indole, and 3-aminoharman, human cells, *129*, 63
4-Hydroxyaminoquinoline oxide, *131*, 105; *133*, 31, 38, 110, 224; *134*, 7
3-Hydroxybenzo[*a*]pyrene, *133*, 224
–, metabolic activation by S12 preparations of human lung, *139*, 9
–, plus selenium, Salmonella, *127*, 9
1-(4-Hydroxybutyl)-3-(2-chloroethyl)-3-nitrosourea, *133*, 224
3α-Hydroxy-5β-cholanic acid, *133*, 30, 37
N-Hydroxy compounds, aliphatic, genotoxicity, abstract, *130*, 227
6-Hydroxydopamine, Salmonella and *B.subtilis* strains, *137*, 17
Hydroxyellipticine, *129*, 303, 305
2-Hydroxyemodin, microsomal transformation of emodin into direct mutagen, *125*, 135
1-(2-Hydroxyethyl)-2-(2-chloroethyl)-3-nitrosourea, *133*, 225
N-(2-Hydroxyethyl) hydrazine, *134*, 7
2-Hydroxyethyl methacrylate, *137*, 96
N-Hydroxyethylmorpholine, rat hepatocyte primary culture/DNA repair test, *136*, 153
Hydroxyfluorenylacetamide, *133*, 224

8-Hydroxygalangin, *135*, 80
Hydroxylamine, *133*, 110; *134*, 80
–, hydrochloride, *133*, 225
6-*N*-Hydroxylaminopurine, *133*, 110
4-Hydroxylaminoquinoline-*N*-oxide, *133*, 171, 176
N-Hydroxylcyclohexylamine, *134*, 74
N-Hydroxyl-2-fluorenylacetamide, *130*, 59
Hydroxymethyl *tert*-butyl peroxide, *133*, 110
7-(Hydroxymethyl)-12-methylbenz[*a*]anthracene, *133*, 225
N-Hydroxymorpholine, rat hepatocyte primary culture/DNA repair test, *136*, 153
Hydroxynitropyrene, *126*, 230
–, activation by rat-liver S9 and bacterial enzymes, *138*, 113
Hydroxyphenyl-dimethyltriazene, *133*, 225
5-(*p*-Hydroxyphenyl)-5-phenylhydantoin, in vitro short-term tests, *137*, 79
1-(3-Hydroxypropyl)-3-(2-chloroethyl)-3-nitrosourea, *133*, 225
8-Hydroxyquinoline, *133*, 110; *134*, 7
8-Hydroxyquinoline-1-oxide, *125*, 300
1′-Hydroxysafrole, *133*, 225; *134*, 7
Hydroxyurea, *130*, 328; *133*, 172, 177, 225
–, and bromo- or chloro-deoxyuridine, in CHO cells, *127*, 155
–, DNA-repair synthesis after UV-C irradiation in unstimulated lymphocytes of healthy blood donors, *131*, 231
–, in human cells, role of deoxynucleoside triphosphate pools, *131*, 163
–, and very low doses of X-rays, in human lymphocytes, during G_2, *141*, 45
Hyperit, industrial compounds derived from, Salmonella, abstract, *130*, 260
Hyperthermia, breakage and loss by fission neutrons in Drosophila, *139*, 119
Hypotonic treatment, modified, measurement of levels of aneuploidy in mammalian cells, *139*, 127
Hypoxanthine, aberrations in cultured Chinese hamster cells in superoxide-generating system, *140*, 27
Hyvar X, *133*, 214

IA-3, *133*, 110
IA-4, *133*, 110, 225
IA-5, *133*, 110
IA-6, *133*, 110
ICPEMC, differentiation between genotoxic and non-genotoxic carcinogens, report, *133*, 1
ICR compounds, 16, *S. typhimurium*, *136*, 185
ICR-170, *131*, 105; *133*, 110, 225; *134*, 73, 79
–, Chinese hamster V79 cells, *137*, 117
ICR-170 · 2HCl, *133*, 171, 176
ICR-170-OH · 2HCl, *133*, 171, 176
ICR-172, *133*, 102
ICR-174, *133*, 110
ICR-177, *133*, 106
ICR-191, *131*, 105; *133*, 225; *134*, 160
–, assay for gene mutation in human lymphoblast line AHH-1, *128*, 221
–, Chinese hamster V79 cells, sister-chromatid exchanges, *137*, 117
–, in diploid human fibroblasts, diphtheria toxin and thioguanine resistance, *125*, 95
ICR-191, (*continued*)
–, metabolic activation by S12 preparations of human lung, *139*, 9
–, mouse lung fibroblast cultures, *132*, 197
–, in situ microbial test system for airborne workplace mutagens, *130*, 45
–, temperature-sensitive 6-thioguanine-resistant mutants in Chinese hamster ovary cells, *139*, 95
ICR-191 · 2HCl, *133*, 171, 176
ICR-191-OH · HCl, *133*, 171, 176
ICRF-159, *133*, 32, 39
Ifosfamide, *133*, 31, 38, 225; *134*, 79
Imidazole open-ring 7-methylguanine, coding properties, abstract, *130*, 185
4,4′-[(4-Imino-2,5-cyclohexadien-1-ylidene)methylene]dianiline · HCl, *130*, 102
Iminostilbenes, and nitrite, structures of products, abstract, *130*, 382
Indigo Carmine, *133*, 225
Indomethacin, bacterial systems, *138*, 133
Inductest, *E.coli* K12, potential chemical carcinogens, evaluation, *130*, 141
Inhalation, technique, application to micronucleus assay, abstract, *130*, 375
Insects, acrylonitrile, *134*, 53
–, ethyl methanesulphonate, *134*, 123
–, radiosensitivity, *127*, 49
Insecticides, abstracts of papers of EEMS 1983, *130*, 243
Interferon, of human fibroblast, in *S.typhimurium* and *E.coli*, *139*, 183
5-Iodo-2′-deoxyuridine, *133*, 225
Iododeoxyuridine, in vivo sister-chromatid exchange analysis, *139*, 57
Iodomethane, Chinese hamster ovary cells, *136*, 137
Iproniazid, *133*, 173, 178; *134*, 161
IQ, MeIQ or MeIQx, synthetic quinolines and quinoxalines related to, Ames test, *137*, 29
–, mouse bone marrow, *140*, 49
Irradiation, γ, ataxia telangiectasia lymphoblastoid cell lines, gene dosage and complementation analysis, *129*, 165
–, –, and bleomycin, response of cord blood lymphocytes, *130*, 395
–, –, ^{60}Co, or fission neutrons, low doses, hybrid male mouse, *129*, 215
–, –, chronic exposure of male mouse, *141*, 195
–, –, evaluations of waste mouse fibroblasts as model of ataxia telangiectasia in vitro, *140*, 219
–, –, human lymphocytes, S-phase, chromatid exchanges, *129*, 173
–, –, male mouse, chemical protection, *140*, 131
–, –, pretreatment of frog cells, and UV, *139*, 35
–, –, proton and neutron, large doses, X-chromosome of *Panagrellus redivivus*, *140*, 103
–, –, radiosensitivity of swine lymphocytes, *126*, 169
–, –, rearrangements in *M.fascicularis*, *126*, 93
–, –, reciprocal translocations in spermatogonia of crab-eating monkey, *129*, 373
–, –, sensitive mutants of mouse, repair of DNA single-strand breaks, *140*, 159

Irradiation, γ, β and X, *138*, 164
–, γ and neutron, visible mutations in Drosophila spermatozoa, *127*, 123
–, γ and UV, in *E.coli, umuC*-dependent and -independent mutagenesis, *128*, 1
–, γ and X, sensitive mutants of Chinese hamster ovary cells defective in double-strand break rejoining, *132*, 189
–, far-UV, and mitomycin C, respiration shutoff in *E.coli* K12, *139*, 107
–, –, xeroderma pigmentosum lymphoblasts, *128*, 47
–, far- and near-UV, interaction, V79 cells, *125*, 283
–, genetic control of targeted and untargeted mutagenesis, abstract, *130*, 200
–, ionizing, cultured hamster cells, nature of mutants, *129*, 269
–, –, effects on cell cycle progression in ataxia telangiectasia, *125*, 115
–, mid- and near-UV monochromatic light, action spectra for Chinese hamster cells, *129*, 251
–, 365-nm and far-UV, in *E.coli* strains differing in UV light sensitivity, *126*, 1
–, UV, of adenovirus 2, heat-enhanced reactivation, *139*, 173
–, –, alteration of deoxynucleoside triphosphate pools in *E.coli, 131*, 97
–, –, and 3-aminoharman, human cells, *129*, 63
–, –, biological monitoring of workers in rubber industry, *138*, 105
–, –, of γ-ray pretreated frog cells, *139*, 35
–, –, critique on analysis of photorepair in chick-embryo fibroblasts, *131*, 205
–, –, cultured mouse cells, increasing population doubling level, *132*, 51
–, –, and cycloheximide, in marsupial cultured cells, *140*, 199
–, –, DNA excision repair in rat and human fibroblasts, kinetics, *132*, 129
–, –, DNA replication in excision-deficient mammalian cells, *132*, 119
–, –, effect of L-ethionine on expression of SOS system in *E.coli, 129*, 319
–, –, in *E.coli*, effect of R-factor plasmid pKM101, *141*, 135
–, –, of *E.coli* K12, occurrence and loss of alkali-labile sites in newly synthesized DNA, *132*, 79
–, –, *E.coli umu*$^+$-encoded function, *139*, 101
–, –, early mouse embryo, exhibition of strain variation in sister-chromatid exchange, *126*, 153
–, –, excision-defective *E.coli*, repair of 8-methoxypsoralen crosslinks, *132*, 153
–, –, and hydroxyurea in human cells, role of deoxynucleoside triphosphate pools, *131*, 163
–, –, and inhibitors of DNA synthesis, in human skin fibroblasts, *131*, 187
–, –, and ionizing, demonstration by UV-type and ionizing radiation-type DNA repair, *131*, 137
–, –, isolation and characterization of mutator mutants from cultured mouse FM3A cells, *129*, 389
–, –, isolation of Chinese hamster cells hyposensitive to ethyl methanesulphonate, *129*, 181
–, –, L5178Y mouse lymphoma cells strains, HGPRT locus, *129*, 259
–, –, *lac* repressor–*lac* operator interactions, abstract, *130*, 183
Irradiation, UV, (*continued*)
–, –, long-wave, repair of 8-methoxypsoralen monoadducts in mouse lymphoma cells, *132*, 73
–, –, and mitomycin C, fibroblasts from patients with retinoblastoma, *141*, 101
–, –, monkey kidney cells, apurinic sites cause mutations in Simian virus 40, *129*, 141
–, –, monochromatid, in solar range, human cells, *129*, 103
–, –, mutagenesis at cloned target sequence, *132*, 143
–, –, mutations in *S.pombe*, effect of spermine, *125*, 205
–, –, in Neurospora, dose-rate effect, *127*, 39
–, –, possible inducibility of error-prone repair in yeast, *129*, 3
–, –, post- dark incubation, survival of chick-embryo fibroblasts after photoreactivation, *132*, 33
–, –, preferential repair of nuclear matrix associated DNA in xeroderma pigmentosum complementation group C, *141*, 75
–, –, protecting plasmid pKM101 and pGW, phleomycin sensitivity in *S.typhimurium*, *140*, 81
–, –, rearrangements in *S.macrospora, 125*, 33
–, –, *recA* protein and exonuclease V, progressive inactivation of integrated prophage, abstract, *130*, 172
–, –, recessive lethals in Neurospora, *uvs* strains, *128*, 137
–, –, resistance, in *E.coli* mutants, by R-plasmid from clinical isolate, *139*, 5
–, –, –, of *recA E.coli* strain, multicopy *phr* plasmid, *131*, 11
–, –, sensitive human clonal cell line, UV-resistant mutant without increased repair synthesis, *125*, 55
–, –, signal of induction of *recA* protein in *E.coli, 131*, 53
–, –, of Simian virus 40, replicative intermediates, *132*, 1
–, –, sister-chromatid exchange, effect of prior X-irradiation, *139*, 123
–, –, and tetracycline, in V79 cells, *135*, 211
–, –, and 12-*O*-tetradecanoylphorbol 13-acetate, Chinese hamster ovary cells, *129*, 119
–, –, unscheduled DNA synthesis, mouse and human fibroblast cells, *132*, 101
–, –, –, Syrian hamster embryo cells, *129*, 111
–, –, use of low temperature for growth arrest and synchronization of human diploid fibroblasts, *130*, 343
–, –, V79 cells, pretreatment with sodium butyrate, *140*, 175
–, –, –, rate of DNA synthesis, *131*, 81
–, –, xeroderma pigmentosum cells, rate of removal of pyrimidine dimers, *132*, 21
–, –, in yeast, fitness of genotypes, *129*, 327
–, –, ΦX174 double-stranded DNA, excision repair and Weigle reactivation, *131*, 1
–, UV and γ, abnormal sensitivity of some Cockayne syndrome cell strains, *131*, 61
–, UV or γ, characterization of methyl methanesulphonate-sensitive mutants of *N.crassa, 125*; 185
Irradiation, UV and ionizing, quantitative analysis of cytotoxic action of chemical mutagens, *129*, 345
–, UV and X, prophage induction in *H.influenzae*, *125*, 15
–, UVA, plus 8-methoxypsoralen, mouse lymphoma cells, *127*, 139
–, –, photoaddition of two new monofunctional pyridopsoralens, human skin fibroblasts, *138*, 63
–, –, strand breaks and resealing in human lymphocytes, abnormal rate, case report, abstract, *130*, 206

Irradiation, (*continued*)
–, UVB, UVA and visible, of host cells, lack of non-targeted mutations in intact bacteriophage, *139*, 45
–, UV-C, unstimulated lymphocytes of healthy blood donors, *131*, 231
–, X, *134*, 157
–, X, aberrations in progeny of female mice, elimination of damage, *139*, 87
–, –, in diploid human fibroblasts, diphtheria toxin and thioguanine resistance, *125*, 95
–, –, DNA-ligase activities appear normal in CHO mutant EM9, *131*, 209
–, –, Ehrlich ascites tumour cells, 6-thioguanine reistance, *126*, 215
–, –, enhanced radiosensitivity for induction of translocations in treated mouse stem cell spermatogonia, *128*, 207
–, –, in vitro-pre-implantation mouse embryos, *125*, 65
–, –, in male mouse, pre- and post-meiotic stages, *125*, 75
–, –, mammalian cells, kinetics of recombinational hybrid formation, *132*, 112
–, –, marmoset stem cell spermatogonia, *129*, 231
–, –, modified micronucleus method, preserved cytoplasm, *130*, 63
–, –, mouse spermatogonial stem cells, heritable reciprocal translocations, *126*, 177
–, –, nondisjunction and chromosome loss in mouse, *126*, 189
–, –, *Pleurodeles waltl, 125*, 275
–, –, prior, effect on UV-induced sister-chromatid exchange, *139*, 123
–, –, repair of single-strand breaks in root tips of Tradescantia, *131*, 143
–, –, sensitivity of spermatogonial stem cells, *127*, 81
–, –, sperm abnormality assay, mouse, *140*, 137
–, –, 6TG-resistant human blood lymphocytes, measurement, *125*, 87
–, –, unequally fractionated, mouse spermatogonia, *127*, 65
–, –, very low doses, combined with inhibitors of DNA synthesis, in human lymphocytes, G_2 phase, *141*, 45
–, –, X-linked lethal mutation in *P.redivivus*, effect of dose rate, *140*, 107
–, X and UV, human lymphocytes, *140*, 223
Isatidine, *133*, 32, 39
Isobutylene gas, lack of genotoxic toxicity, abstract, *130*, 259
Isocarboxazid, *133*, 173, 178; *134*, 161
Isochromosome, octacentric, in mouse L-cells, evolution, *128*, 41
Isoniazid, *125*, 300; *133*, 10, 26, 33, 173, 178
–, fluctuation assays and Ames tests, abstract, *130*, 209
–, in vivo and in vitro biotransformation, Salmonella, *137*, 61
Isonicotinic acid hydrazide, *133*, 173, 178
Isophosphamide, *134*, 7
Isopropanol, *133*, 110
Isopropylbenzene, *133*, 225
Isopropyl methanesulphonate, *134*, 74, 79, 157
N-Isopropyl-3-(5-nitro-2-furyl)-acrylamide, *133*, 110
Isosafrole, *129*, 303, 304; *133*, 29, 36
Isowogonin, *135*, 80

Japan, Environmental Mutagen Society, 12th Annual Meeting, papers presented at, abstracts, *130*, 361

Kanamycin, *133*, 225
Karmex, *133*, 225
Karyotypes, most similar to those of man, *126*, 81
Kathon^R, assembling a battery of assays to predict carcinogenicity, case study, *141*, 65
Keratinocytes, oral, human, cultured, unscheduled DNA synthesis by sodium fluoride, *140*, 43
Kerosene heater emission, combustion products, abstract, *130*, 370
4-Keto-cyclophosphamide, several test systems, *129*, 47
Kilacar, different test systems, abstract, *130*, 243

Lactic acid, *V.faba, 140*, 123
Laminaria angustata, extracts, and 7,12-dimethylbenz[*a*]-anthracene, in Salmonella, *127*, 113
Lannate, *133*, 226
Lasiocarpine, *133*, 29, 36; *134*, 7
–, assay for gene mutation in human lymphoblast line AHH-1, *128*, 221
Lasix, *133*, 225
Laurate, and *N*-nitrosodimethylamine, in *E.coli, 135*, 87
Lauric acid, enzymatic characterization of polynuclear hydrocarbons activating rat-liver preparations , *125*, 123
Lead acetate, *131*, 173; *133*, 29, 36, 225; *138*, 161
–, statistical analysis of mouse micronucleus test, *128*, 161
Lead chromate, *133*, 225
Lead nitrate, *138*, 161
Leucine, Salmonella, *136*, 217
Leukaemia, cells, Friend, mutation at adenine phosphoribosyl locus, abstract, *130*, 170
–, –, –, thymidine transport and phosphorylation, bromodeoxyuridine resistance, *126*, 53
–, lymphatic, acute, in children, long-term cytogenetic effects of cytostatic therapy, abstract, *130*, 251
–, patients, treated with antileukaemic agents, micronucleus test, *130*, 113
–, SCE induction by cytostatics in vivo, abstract, *130*, 257
Light Green SF, *133*, 31, 38
Limpets, oil pollution, *136*, 93
Lindane, *129*, 305
γ-Lindane, *133*, 26, 33
Lindex, *133*, 226
Linoleic acid peroxide, *A.nidulans, 136*, 109
Lipoperoxide, *A.nidulans, 136*, 109
Lipoproteins, low-density, human lymphocytes treated with *r*-7,*t*-8-dihydroxy-*t*-9,10-epoxy-7,8,9,10-tetrahydrobenzo-[*a*]pyrene, *131*, 37
Liposomes, incorporation in, application of genotoxins of low water solubility in SCE assay, *139*, 207
Liquid holding, and age, effects on UV-radiation sensitivities of wild-type and mutant *Caenorhabditis elegans* dauer larvae, *132*, 95
–, experiments with human peripheral lymphocytes, *128*, 59
Liquid-holding recovery, effect of L-ethionine on MMC-induced SCEs, in human lymphocytes, *128*, 153
Lisuride hydrogen maleate, mammalian spot test, *135*, 219
Literature search, new system for file selection and choice of appropriate questionnaire, abstract, *130*, 382

Lithium carbonate, *129*, 305
Lithocholate, *133*, 20
Liver, cancer, in rat or mouse, agents that increase its incidence, *133*, 12
–, enzymes, nitroheterocyclic compounds, *136*, 1
Local Activity Reports, for 1983, by EEMS councillors for their respective countries, *130*, 305
Lucanthone, *133*, 110
Lupus erythematosus, patients, SCE frequencies in lymphocytes, *128*, 167
Luteolin, *135*, 81
(−)-Luteoskyrin, *133*, 32, 39
Lyndiol, *Allium cepa, 135*, 181
D-Lysergic acid, *134*, 72, 76

Maalox, *138*, 162
Macaca fascicularis, karyotypes most similar to those of man, diagrammatic representation, *126*, 90
–, γ-ray-induced reciprocal translocations in spermatogonia, *129*, 373
–, radiation-induced rearrangements, *126*, 93
Mackerel, mutagens in canned foods, *141*, 131
Maize, 11 herbicides and 13 combinations, *136*, 233
Malachite Green, mammalian spot test, abstract, *130*, 248
Malathion, *133*, 29, 36, 226; *134*, 7
Maleic acid diamide, *V.faba, 140*, 123
Maleic acid, *V.faba, 140*, 123
Maleic hydrazide, *133*, 10, 29, 36, 110
–, 'clastogenic adaptation' of *Vicia faba* root-tip meristem, *140*, 99
–, and putative degradation products, *140*, 123
–, tobacco plants chronic exposure, *139*, 25
Malondialdehyde, in Salmonella, DNA cross-links, *129*, 39
Maltitol crystal, bacterial reversion assay and micronucleus test, *137*, 133
'Malti-Towa', powder, bacterial reversion assay and micronucleus test, *137*, 133
Maltose, technical grade, *130*, 103
Mammals, ethyl methanesulphonate, *134*, 130
–, new method to detect micronuclei in early spermatids, abstract, *130*, 222
Mammalian cells, antimutagenic effects of ascorbic acid, *133*, 143
–, cellular metabolism, abstracts of papers of EEMS 1983, *130*, 223
–, culture, ethyl methanesulphonate, *134*, 126
–, effect of ascorbic acid, *133*, 139
–, genetic consequences of nucleotide precursor pool imbalance, *126*, 107
Mammalian systems, in vitro and in vivo, acrylonitrile, *134*, 53
Man, aberrations in employees from fossil-fueled and nuclear power plants, *138*, 205
–, autopsy service workers, exposed to formaldehyde, *130*, 417
–, betel and tobacco chewers, sister-chromatid exchanges, *139*, 79
–, cytogenetic damage in workers exposed to ethylene oxide, *138*, 185
–, effects of ascorbic acid, *133*, 152
Man, (*continued*)
–, genetic and partially genetic disorders, years of life lost and years of impaired life, *128*, 73
–, healthy blood donors, UV-C irradiation, unstimulated lymphocytes, DNA-repair synthesis, *131*, 231
–, karyotypes most similar to those of diagrammatic representation, *126*, 81
–, lack of effect of self-poisoning on subsequent reproductive outcome, *127*, 175
–, method for assessment of damage, micronuclei in lymphocytes with preserved cytoplasm, *130*, 63
–, mutagenicity of carbamazepine and some of its metabolites, *139*, 83
–, sister-chromatid exchange report on control subjects and ethylene oxide-exposed workers, *129*, 77, 89
Mancozeb, *133*, 221
Maneb, *133*, 221
Manganese chloride, *138*, 161
Manganese, compounds, *lacI* gene of *E.coli, 126*, 9
Manganese (2 +) ions, *133*, 226
Manganese sulphate, *133*, 226
–, *S.cerevisiae, 137*, 47
Manzate-200, *133*, 221
Manzate D, *133*, 221
Marijuana, and formaldehyde exposure in autopsy service workers, *130*, 417
Marmoset, stem cell spermatogonia, X-irradiation, *129*, 231
Marsupial, cells, cycloheximide and UV, *140*, 199
Mealmoth, radiosensitivity, *127*, 49
Mebanazine oxalate, *133*, 173, 178
Mecoprop, *133*, 226
Media, aminopterin- or azaserine-containing, selection of HGPRT revertants, V79 cell clones, *126*, 273
Medium, lacking foetal calf serum and antibiotics, cultured human lymphocytes, *129*, 207
Melphalan, *133*, 29, 36; *134*, 73, 100, 105, 106
–, distribution of sister-chromatid exchanges in human lymphocytes, *125*, 263
Menthol, Salmonella/mammalian microsome test, *138*, 17
Menthone, Salmonella/mammalian microsome test, *138*, 17
Meprobamate, *134*, 76
2-Mercaptoethylamine, *133*, 110
6-Mercaptopurine, *134*, 7
–, damage in vitro and in vivo, abstract, *130*, 252
–, leukaemia patients, micronucleus test, *130*, 113
–, mouse bone marrow, *127*, 129
–, mouse micronucleus test, pilot experiment, *141*, 167
Mercuric chloride, *133*, 110; *138*, 161
Mercurochrome, *133*, 226
Merpelan, *133*, 226
Merphalan, *133*, 30, 37
Metal, compounds, arsenic, cadmium, chromium, nickel, *134*, 99
–, lesions and repair replication in mammalian cells, *131*, 173
–, mutagenesis in *lacI* gene of *E.coli, 126*, 9
Methadone, *134*, 73
Methafurylene, Salmonella, *135*, 105
1-(2-Methanesulphonyloxyethyl)-3-(3-chloroethyl)-3'-nitrosourea, *133*, 226

Methanol, *133*, 110, 172, 177; *134*, 160
–, Chinese hamster V79 cells, micronucleus compared with sister-chromatid exchange assay, *130*, 273
Methaphenilene, Salmonella, *135*, 105
Methapyrilene, *125*, 301
–, and related antihistamines, rat hepatocytes, *135*, 131
Methionine, Salmonella, *136*, 217
Methomyl, *133*, 226
Methotrexate, *133*, 226; *134*, 7
–, cultured human lymphocytes, *139*, 67
–, leukaemia patients, micronucleus test, *130*, 113
–, mouse micronucleus test, pilot experiment, *141*, 167
–, Salmonella (SV50)/arabinose-resistant forward mutation, *130*, 81
Methoxyamine, *134*, 72
Methoxyamine hydrochloride, *133*, 226
3-Methoxy-4-aminoazobenzene, *133*, 226; *134*, 7
4-Methoxy-1,3-benzenediamine sulphate, *133*, 32, 39
2-Methoxybiphenyl, *133*, 226
Methoxychlor, *133*, 27, 34, 226; *134*, 7
2-Methoxy-6-chloro-9-(3-(ethyl-2-chloroethyl)aminopropylamino)acridine dihydrochloride, *133*, 110
6-Methoxy-4-(3-(ethyl-2-chloroethyl)aminopropylamino)-quinoline dihydrochloride, *133*, 110
Methoxyethylmercury chloride, *134*, 78
2-Methoxy-hydrochloride benzenamine, *133*, 29
7-Methoxynaphtho[2,1-*b*]furan, Chinese hamster V79 cells, micronucleus compared with sister-chromatid exchange assay, *130*, 273
1-(4-Methoxyphenol)-3,3-dimethyltriazene, *133*, 226
4-Methoxy-*m*-phenylenediamine, in human fibroblasts, activation by prostaglandin synthase, *127*, 107
2-Methoxy-*p*-phenylenediamine, in human fibroblasts, activation by prostaglandin synthase, *127*, 109
5-Methoxypsoralen, in the dark, Salmonella, *136*, 49
8-Methoxypsoralen, *125*, 165; *133*, 226
–, compared with two new monofunctional pyridopsoralens, human skin fibroblasts, *138*, 63
–, crosslinks, repair, in UV-excision-defective *E.coli, 132*, 153
–, in the dark, Salmonella, *136*, 49
–, –, SFIA SOS repair function, *131*, 111
–, excision-defective strains of *E.coli*, abstract, *130*, 195
–, monoadducts, in mouse lymphoma cells, repair, *132*, 73
–, plus UVA, mammalian cells, *127*, 139
5-Methoxytryptamine, protection against radiation in male mouse, *140*, 131
Methyl acrylate, in mouse micronuclues test, *135*, 189
–, Salmonella, *137*, 96
N-Methyl-*p*-aminophenol sulphate, *133*, 112
Methylazoxymethanol acetate, *133*, 30, 37, 228
Methylbenz[*a*]anthracenes, carcinogenicity, correlation with hepatocyte-mediated mutagenicity, abstract, *130*, 226
p-Methylbenzyl-2-*trans*-((5-nitro-2-furyl)-vinyl)-imidazole, *133*, 112
Methyl carbamate, *133*, 226
4-Methylcatechol, *135*, 111
2-Methyl-4-chlorophenoxyacetic acid, *133*, 227; *134*, 78
2-Methyl-4-chlorophenoxyacetic methyl ester, *133*, 227
3-Methylcholanthrene, *125*, 297; *129*, 303, 305; *130*, 144, 327; *133*, 26, 33, 112, 170, 175; *134*, 7
–, in benzene-treated mouse, *135*, 225
–, and carcinogenic aromatic amines, in Salmonella, *125*, 23
–, Chinese hamster primary lung cell cultures, *130*, 333
–, Drosophila, *125*, 243
–, effect of storage at 4° on Salmonella/microsome test plates, *141*, 7
–, enzymatic characterization of polynuclear aromatic hydrocarbons activating rat-liver preparations, *125*, 123
–, human epithelial teratoma cells, HGPRT locus, *130*, 127
–, human hepatoma cell-mediated assay, *136*, 65
–, Metabolic activation by preparations of human lung, *139*, 9
–, and phenobarbital-like chemical inducers of cytochrome P-450 monooxygenases, *129*, 299
–, pretreatment, microsomal transformation of emodin, *125*, 135
O^6-Methyldeoxyguanosine, radioimmunoassay, validation and analysis of small cell samples, abstract, *130*, 214
7-Methyldibenz[*a*,*h*]anthracene, human hepatoma cell-mediated assay, *136*, 65
Methyldimethylaminoazobenzene, *130*, 54, 56–59; *133*, 112, 227; *134*, 7
N-Methylellipticinium acetate, *129*, 303, 305
4,4′-Methylenebis(2-chlorobenzenamine), *133*, 28, 35
Methylene Blue, *125*, 165; *133*, 228
–, in *E.coli* WP6, in the dark, *137*, 1
Methylene chloride, *133*, 228; *138*, 161
Methylene dianiline, *138*, 160
Methyl ethyl ketone peroxide, peroxidative damage to rat brain DNA, protection of vitamin E, *126*, 113
Methylethylnitrosamine, *125*, 176
2-Methyl-5-ethylpyridine, *133*, 228
Methylglyoxal, and instant coffee, cultured Chinese hamster lung cells, *141*, 109
O^6-Methylguanine, in Chinese hamster V79 cells, revision, *139*, 149
–, enhanced repair, in rat liver pretreated with phenobarbital or ENU, abstract, *130*, 197
–, model for mechanism of alkylation mutagenesis, *125*, 1
O^6-Methylguanine–DNA methyltransferase, in human cells, *131*, 27
–, and uracil–DNA glycosylase activities, human epidermis, *131*, 183
Methylhydrazine, *133*, 228
Methylhydroxylamine, *133*, 112
3-Methyl-3*H*-imidazo[4,5-*f*]quinoline, Ames test, *137*, 29
Methyl iodide, *133*, 27, 34, 226
α-Methylmalondialdehyde, in Salmonella, DNA cross-links, *129*, 39
Methyl mercury chloride, mouse, dominant lethal test, *136*, 131
Methylmercury hydroxide, *134*, 79
Methyl methacrylate, *137*, 96
Methyl methanesulphonate, *see* MMS
2-Methyl-2-(methylthio)propionaldehyde-*o*-(methylaminocarbonyl)oxime, *133*, 28, 35
Methylmetiram, *133*, 228

N–Methylmorpholine oxide, rat hepatocyte primary culture/DNA repair test, *136*, 153
1-Methylnicotinamide, inhibitors of ADP-ribosyl transferase in Chinese hamster ovary cells, *126*, 63
Methylnitronaphthalene, *126*, 230
N-Methyl-*N'*-nitro-*N*-nitrosoguanidine, *see* MNNG
3-Methyl 4-nitroquinoline 1-oxide, human fibroblasts, activity of 3-aminobenzamide, abstract, *130*, 205
Methylnitrosamine, *133*, 11, 32, 39
N-Methyl-*N*-nitrosocaproamide, *133*, 227
N-Methyl-*N*-nitroso-*N*-pentylamine, *133*, 32, 39
Methyl nitrosopiperidine, *133*, 227; *134*, 80
Methylnitrosourea, *125*, 178; *130*, 102, 131, 105; *133*, 30, 37, 157; *135*, 91
–, alkaline elution of rat testicular DNA, *130*, 283
–, and cadmium, in *S.typhimurium, 138*, 9
–, Chinese hamster cells, relationship between several kinds of damage, *128*, 31
–, embryonic mouse limbs, damage and repair, *131*, 147
–, inhibitors of ADP-ribosyl transferase in Chinese hamster ovary cells, *126*, 63
–, in *N.crassa* spheroplasts, *125*, 43
–, posttreatment of G2 phase CHO cells with Neurospora endonuclease, *140*, 111
–, validation of RK test, *130*, 107
N-Methyl-*N*-nitrosourea, *134*, 7
–, V79 cells, negative evidence for adaptive response, *129*, 243
N-Methyl-*N*-nitrosourethane, *133*, 30, 37
Methyl Orange, *130*, 145; *136*, 35
Methyl parathion, *133*, 29, 36, 231; *134*, 7
1-Methylphenanthrene, gene mutation in human lymphoblast line AHH-1, *128*, 221
1,1'-(4-Methyl-*m*-phenylene)bis-3'-(2-chloroethyl)-3-nitrosourea, *133*, 227
N-Methyl-*N*-piperazinoacethydrazide, *133*, 227
Methyl-*N*-propylnitrosamine, *125*, 176
Methyl purines, by MNNG, in adenovirus-5 DNA, *131*, 45
Methylpyridinium-carbohydroxamic acid (iodide), *135*, 140
7-Methyl-pyrido[3,4-*c*]psoralen, human skin fibroblasts, *138*, 63
N^6-Methylquinoline-5,6-diamine, Ames test, *137*, 29
5-Methylresorcine, and benzo[*a*]pyrene, V79/HGPRT system, *137*, 57
Methyltransferase, O^6-methylguanine activity, in human cells, *131*, 27
Methylvinylnitrosamine, *133*, 31, 38
Methyl Violet, *133*, 227
Metiram, *133*, 228
Metolachlor, *136*, 234
Metronidazole, *133*, 30, 37, 112, 288; *134*, 7
–, Salmonella, *130*, 81
–, sperm abnormality assay, mouse, *140*, 137
Metyrapone, *129*, 304
Micrococcus luteus, effects of 5-azacytosine on enzymic uracil excision, *140*, 93
Microgynon-30, *Allium cepa, 135*, 181
Micronuclei, in lymphocytes, with preserved cytoplasm, *130*, 63
Micronucleus assay, human, γ-irradiation and bleomycin in cord blood lymphocytes, *130*, 395
Micronucleus assay, (*continued*)
–, improved, in human lymphocytes, *139*, 61
–, in vitro, mutagen–carcinogens, compared with sister-chromatid exchange assay, *130*, 273
Micronucleus method, male germ cells of mammals, evaluation, *140*, 187
Micronucleus test, density-gradient enrichment of newly-formed mouse erythrocytes, *130*, 159
–, mouse, cyanamide, *136*, 127
–, –, ethyl acrylate and methyl acrylate, *135*, 189
–, –, pilot experiment, *141*, 165
–, –, Propineb, *135*, 193
–, sensitivity, cultured bone-marrow cells, abstract, *130*, 382
Microorganisms, acrylonitrile, *134*, 50
Microsomes, of human liver, activation of mutagens in cooked ground beef, *140*, 61
Milkweed bug, radiosensitivity, *127*, 49
Milling Scarlet G, *136*, 35
Minced clams, mutagens in canned foods, *141*, 131
Miracil D, *134*, 79
Misonidazole, growth of A549 cells, organotypic and monolayer culture conditions, *130*, 190
Mitogen, stimulated human peripheral lymphocytes, resistance to 6-thioguanine, *139*, 41
Mitomen, *134*, 157
Mitomycin C, *130*, 102, 144, 145; *131*, 105; *133*, 26, 33, 112, 228; *134*, 7, 76, 157; *138*, 162
–, alkaline elution of rat testicular DNA, *130*, 295
–, and 3-aminoharman, human cells, *129*, 63
–, antimutagenic factors in bacterial cells and cultured broth, abstract, *130*, 384
–, plus caffeine, in *Xenopus laevis* cells, *128*, 25
–, in *Capsicum annuum, 138*, 47
–, characterization of MMS-sensitive mutants of *N.crassa, 125*, 185
–, in cultured human blood lymphocytes, *129*, 283
–, and cyclophosphamide, in female mouse germ cells, *128*, 181
–, in *E.coli*, low concentrations, *126*, 121
–, *E.coli umu*$^+$-encoded function, *139*, 101
–, and L-ethionine, human lymphocytes, liquid-holding recovery, *128*, 153
–, and far-UV, in *E.coli*, respiration shutoff, *139*, 107
–, in human lymphocytes, influence of caffeine and 3-aminobenzamide, *126*, 251
–, isolation of Chinese hamster cells hyposensitive to ethyl methanesulphonate, *129*, 181
–, and MNNG, in *E.coli*, SOS expression, *132*, 15
–, mouse bone marrow, *127*, 129
–, mouse micronucleus test, pilot experiment, *141*, 167
–, *Oryzias latipes, 125*, 221
–, in pregnant mouse, *126*, 47
–, prophage induction in *H.influenzae, 125*, 15
–, reversion of new strain of Salmonella, *130*, 315
–, RK test, validation, *130*, 107
–, role of hydrogen donors in formation of cytotoxic derivatives, abstract, *130*, 234
–, SCE frequencies in lymphocytes of systemic lupus erythematosus patients, *128*, 167

Mitomycin C, (*continued*)
–, sensitivity of Bloom syndrome fibroblasts to mitomycin C, *131*, 223
–, and UV, in fibroblasts from patients with retinoblastoma, *141*, 101
–, without S9, human lymphocyte in vitro cytogenetic assay, positive and negative control observations, *141*, 59
–, yeast meiotic products, drug synergism or antagonism, *141*, 161
Mixed-function oxidase activities, in adult Drosophila, genotype and age, *139*, 51
MK-0436, activation, and deactivation of nitrofurans and nitroimidazoles, *136*, 1
MMS, *125*, 178, 295; *130*, 102, 144, 145; *133*, 27, 34, 112, 172, 177, 226; *134*, 7; *138*, 160
–, adaptive response, nitrosocimetidine in *E.coli, 139*, 111
–, alkaline elution of rat testicular DNA, *130*, 283
–, and 3-aminoharman, human cells, *129*, 63
–, analysis of caffeine and 3-aminobenzamide in Syrian baby hamster kidney cells, *131*, 71
–, Chinese hamster, relationship between several kinds of damage, *128*, 31
–, –, V79 cells, micronucleus assay compared with sister-chromatid exchange assay, *130*, 273
–, DNA-ligase activities appear normal in CHO mutant EM9, *131*, 209
–, effects of DNA-repair-deficient mutants on UZ system in Drosophila, *141*, 29
–, in *E.coli*, effect of R-factor plasmid pKM101, *141*, 135
–, *E.coli umu*$^+$-encoded function, *139*, 101
–, human lymphocytes, early and late G_1, *139*, 71
–, and hydroxyurea in human cells, role of deoxynucleoside triphosphate pools, *131*, 163
–, *Oryzias latipes, 125*, 221
–, pretreatment of *E.coli* CM891 with ethylenediaminetetraacetate, *140*, 13
–, prophage induction in *H.influenzae, 125*, 15
–, in rat, stage-specific induction of sister-chromatid exchanges in utero, *128*, 17
–, RK test, validation, *130*, 107
–, Salmonella, *130*, 81
–, sensitive mutants of *N.crassa*, isolation and characterization, *125*, 185
–, in situ microbial test system for airborne workplace mutagens, *130*, 45
–, use of 10% horse serum in cloning of $TK^{-/-}$ mutants of mouse lymphoma cells, *140*, 215
MNNG, *125*, 295; *130*, 102, 144, 145; *131*, 105; *133*, 27, 34, 112, 172, 177, 227; *134*, 7, 73, 77, 157; *135*, 91
–, adaptive response, nitrosocimetidine in *E.coli, 139*, 111
–, and 3-aminoharman, human cells, *129*, 63
–, and cadmium, in *S.typhimurium, 138*, 9
–, characterization of methyl methanesulphonate-sensitive mutants of *N.crassa, 125*, 185
–, Chinese hamster, V79 cells, micronucleus assay compared with sister-chromatid exchange assay, *130*, 273
–, CHO cells, inhibition of poly(ADP-ribose) synthesis, abstract, *130*, 185
–, cultured mouse cells, increasing population doubling level, *132*, 51
MNNG, (*continued*)
–, and dimethylnitrosamine, in *A.thaliana, 139*, 29
–, in *E.coli*, low concentrations, *126*, 121
–, HGPRT locus, human epithelial teratoma cells, *130*, 127
–, in human cells, O^6-methylguanine–DNA methyltransferase, *131*, 27
–, human faecal fractions and nuclear damage in colonic epithelial mouse cells, *141*, 35
–, human fibroblast, Chinese hamster ovary and central mudminnow cells, *129*, 129
–, in human lymphocytes, influence of caffeine and 3-aminobenzamide, *126*, 251
–, methylpurines, produced by, in adenovirus-5 DNA, *131*, 45
–, and mitomycin C, in *E.coli*, SOS expression, *132*, 15
–, model for mechanism of alkylation mutagenesis, *125*, 1
–, mouse lung fibroblast cultures, *132*, 197
–, Phycomyces spores, *125*, 195
–, posttreatment of G2 phase CHO cells with Neurospora endonuclease, *140*, 111
–, prophage induction in *H.influenzae, 125*, 15
–, rearrangements in *S.macrospora, 125*, 33
–, reversion of new strain of Salmonella, *130*, 315
–, RK test, validation, *130*, 107
–, Salmonella, *130*, 81
–, *S.cerevisiae*, abstract, *130*, 179
–, and 12-*O*-tetradecanoylphorbol 13-acetate, Chinese hamster ovary cells, *129*, 119
–, in utero exposure of mouse, micronuclei, *128*, 173
–, in UV-sensitive human clonal cell line, *125*, 55
–, V79 cells, negative evidence for adaptive response, *129*, 243
Model, for mechanism of alkylation mutagenesis, *125*, 1
–, of path probability, for sister-chromatid exchanges by alkylating agents, *126*, 35
Monkey, crab-eating, γ-irradiation-induced reciprocal translocations in spermatogonia, *129*, 373
Monoazo dyes, selected, and benzidine-congener dyes, modified Salmonella assay, *136*, 33
Monocaproyl glycerol, 135, 93
Monocaprylyl glycerol, *135*, 93
Monocrotaline, *133*, 11, 29, 37; *134*, 73
Monocrotophos, *133*, 228
Monoepoxybutane, *133*, 112
Monomethylamino, and *N*-cyanoethyl analogues, of 4-dimethylaminoazobenzene and 6-dimethylaminophenylazobenzthiazole, Salmonella, *128*, 11
Mononitrobenzo[*a*]pyrenes, isomeric, synthesis and identification, *140*, 81
Monooxygenases, cytochrome P-450, 3-methylcholanthrene- and phenobarbital-like chemical inducers of, *129*, 299
–, microsomal stability, influence of NADPH-generating system, during incubation, *129*, 291
Monosodium glutamate, *133*, 172, 177
Monosodium methanearsonate, *133*, 228
Monuron, *133*, 11, 29, 36, 228
Morphine hydrochloride, *134*, 72
Morpholine, rat hepatocyte primary culture/DNA repair test, *136*, 153
Morpholines, *N*-substituted, rat hepatocyte primary culture/DNA repair test, *136*, 153

3-Morpholinone, rat hepatocyte primary culture/DNA repair test, *136*, 153
1-(3-Morpholinopropyl)-2-(5-nitro-1-methyl-2-imidazolyl)-benzimidazole, *133*, 228
Mouse, agents that increase incidence of liver cancer, *133*, 12
–, antimutagenic effect of ethoxyquin, *135*, 125
–, aromatic glycidyl compounds, *135*, 159
–, autosomal nondisjunction and chromosome loss, *126*, 189
–, benzene, modifications in myeloclastogenic effect with toluene, phenobarbital, 3-methylcholanthrene, Aroclor 1254 and SKF-525A, *135*, 225
–, bone marrow, effects of H-2 genes, abstract, *130*, 373
–, –, in vivo sister-chromatid exchange analysis, *139*, 57
–, –, mechanism of micronuclei formation, abstract, *130*, 364
–, –, micronucleus formation and aberrations, *127*, 129
–, –, polychromatic erythrocytes, diphenylhydantoin, *141*, 183
–, –, Trp-P-2, *140*, 49
–, –, whole cigarette smoke exposure, *136*, 73
–, C57Bl/6, bone marrow, in vivo SCE, enhanced frequency, abstract, *130*, 220
–, C57BL/6J, spot test, chlordimeform, its principal metabolites and lisuride hydrogen maleate, *135*, 219
–, CBA, F_1 progeny, alkylating mutagen, electrophoretic enzyme variants, *125*, 71
–, cells, cultured, increasing population doubling level, DNA repair, *132*, 51
–, –, ethyl methanesulphonate, *134*, 128
–, CFW, in vivo and in vitro cytogenetic effects of amsacrina, *138*, 87
–, C3H T10½, fibroblasts, ethylphenylglycidate, *138*, 1
–, chloral hydrate, pretreatment with β-naphthoflavone and Na-phenobarbital, *141*, 19
–, chromosome loss and nondisjunction, abstract, *130*, 177
–, colonic epithelial cells, nuclear damage by human faecal fractions, *141*, 35
–, corn oil and its minor constituents, DMBA-induced breaks in vivo, *136*, 247
–, DBA/2, cresols, *137*, 51
–, DNA repair kinetics, unwinding and nucleoid sedimentation methods, *131*, 19
–, dominant lethal test, methyl mercury chloride, *136*, 131
–, Ehrlich ascites tumour cells, X-irradiated, kinetics of recombinational hybrid formation, *132*, 113
–, embryo, early, strain variation in radiation-induced sister-chromatid exchange, *126*, 153
–, EMS, *127*, 1
–, erythrocytes, newly-formed, density-gradient enrichment, *130*, 159
–, ethyl carbamate, ethyl *N*-hydroxycarbamate and vinyl carbamate, *126*, 159
–, female, plant oils, pseudo dominant-lethal responses, *129*, 235
–, –, progeny, elimination of X-ray-induced aberrations, *139*, 87
–, fibroblast cells, excision repair, UV-induced unscheduled DNA synthesis, *132*, 101
–, fibroblasts, wasted, evaluation as model of ataxia telangiectasia in vitro, *140*, 219

Mouse, (*continued*)
–, FM3A cells, cultured, isolation and characterization of mutator mutants, *129*, 389
–, foetal liver, *N*-methyl-*N'*-nitro-*N*-nitrosoguanidine, in utero exposure, micronuclei, *128*, 173
–, garlic, turmeric and asafoetida, *136*, 85
–, germ cells, antimutagenic effects, *140*, 127
–, –, further evaluation of micronucleus method, *140*, 187
–, –, histocompatibility gene mutations, *126*, 279
–, –, mitomycin C and cyclophosphamide, *128*, 181
–, hepatoma, feeding on a high level dose of sorbic acid, deplation of reduced glutathione level, *130*, 267
–, hybrid male, low doses of ^{60}Co γ-rays or fission neutrons, *129*, 215
–, inhalation of ethylene oxide, specific-locus mutation rates, *129*, 381
–, L5178Y lymphoma cell strains, UV mutagenesis, HGPRT locus, *129*, 259
–, L5178Y $TK^{+/-}$, lymphoma forward mutation assay, evaluation, *125*, 291
–, L-cells, evolution of octacentric isochromosome in mouse L-cells, *128*, 41
–, limbs, embryonic, methylnitrosourea, damage and repair, *131*, 147
–, liver micromes, foetal, indirect mutagens in Salmonella, abstract, *130*, 378
–, –, genotoxicity studies with paracetamol, *138*, 21
–, lung fibroblast, cultures, endogenous activation by indirect muta-carcinogens, *132*, 197
–, –, stimulation of mitochondrial DNA synthesis, abstract, *130*, 203
–, lymphoma cells, diallate and triallate herbicides, *136*, 173
–, –, 2,4-diaminotoluene, locus specificity, *135*, 115
–, –, 8-methoxypsoralen plus UVA, *127*, 139
–, –, quercetin, *136*, 9
–, –, repair of 8-methoxypsoralen monoadducts, *132*, 73
–, –, use of 10% horse serum in cloning of $TK^{-/-}$ mutants, *140*, 215
–, lymphoma TK locus assay, some factors affecting interpretation, abstract, *130*, 217
–, male, chemical protection against effect of radiation, *140*, 131
–, –, chronic exposure to γ-rays, *141*, 195
–, –, dimethyl methyl phosphonate, dominant lethal mutations, *138*, 213
–, –, mitotic cells, sulphadiazine and sulphaguanidine, *141*, 201
–, –, spectra of chemically induced specific-locus mutations, abstract, *130*, 171
–, –, X-irradiation, pre- and post-meiotic stages, *125*, 75
–, 'Malti-Towa' (powder) and maltitol crystal, *137*, 133
–, micronucleus test, cyanamide, *136*, 127
–, –, ethyl acrylate and methyl acrylate, *135*, 189
–, –, pilot experiment, *141*, 165
–, –, statistical analysis, *128*, 161
–, non-breeding-test methods for dominant skeletal mutations, by ethylnitrosourea, *127*, 93
–, point mutations by alkylating agents, abstract, *130*, 190
–, pregnant, procarbazine, mitomycin C and cyclophosphamide, *126*, 47

Mouse, (*continued*)
–, pre-implantation embryos, X-irradiation in vitro, *125*, 65
–, radiation-sensitive mutants, repair of DNA single-strand breaks, *140*, 159
–, S9 liver preparations, Salmonella and yeast tests, *140*, 75
–, Sarcoma-180, ascites cells, rifampicin, *141*, 171
–, sister-chromatid exchange studies, single injection of BrdU in melted agar, *141*, 189
–, Snell, dwarf, human growth hormone in vitro, *127*, 61
–, somatic cells, 'plaidoyer' in favour of melanocyte test, abstract, *130*, 210
–, sperm abnormality assay, DMBA, inhibition by naphthoflavones, *136*, 81
–, –, of metronidazole and tinidazole, *140*, 137
–, spermatogonia, antineoplastic drugs, *140*, 193
–, –, X-rays, unequally fractionated, *127*, 65
–, spermatogonial stem cells, X-rays, heritable reciprocal translocations, *126*, 177
–, spontaneous early embryonic lethality, analysis, *128*, 65
–, spot tests, with dimethylbenz[*a*]anthracene, phenobarbital pretreatment, *141*, 105
–, stem cell spermatogonia, treated with cyclophosphamide or adriamycin, enhanced radiosensitivity, *128*, 207
–, sterigmatocystin and griseofulvin, *137*, 111
–, Swiss albino, vincristine, *138*, 55
–, Swiss ICR, male, influence of simple aromatics on benzene clastogenicity, *128*, 105
–, testis, X-ray sensitivity of spermatogonial stem cells, *127*, 81
–, theophylline reversal of alkylator-induced replicon initiation inhibition, *141*, 117
–, transplacental mutagenesis, relevance of genotype and metabolism modifiers, abstract, *130*, 206
–, urine, *N*-[4-(5-nitro-2-furyl)-2-thiazolyl]-formamide or 2-amino-4-(5-nitro-2-furyl)thiazole, *135*, 169
Multiple congenital anomalies, estimates of detriment, *128*, 96
Musca domestica, radiosensitivity, *127*, 49
Musculoskeletal deformities, congenital, estimates of detriment, *128*, 92
Mussels, oil pollution, *136*, 93
Mustard gas, *133*, 30, 37; *134*, 74, 79, 96, 105
Muta–carcinogens, indirect, endogenous activation, mouse-lung fibroblast cultures, *132*, 197
Mutagenicity, assays, evaluation for purposes of genetic risk assessment, *134*, 143
–, use of terms, Letter to Editor, *132*, 139, 141
Mutations, clear-plaque, in bacteriophage lambda by 9-aminoacridine, *129*, 311
–, frequency decline, UV mutagenesis at cloned target sequence, *132*, 143
Mutator mutants, isolation and characterization, cultured mouse FM3A cells, *129*, 389
Mycotoxins, sterigmatocystin and griseofulvin, in mouse, sister-chromatid exchanges in vivo, *137*, 111
Myleran, *133*, 26, 33, 112; *134*, 7
Mytilus edulis, oil pollution, *136*, 93

NADPH-generating system, influence on microsomal monooxygenase stability during incubation, *129*, 291
NADPH-regenerating system, influences of microsomal monooxygenase stability during incubations, abstract, *130*, 228
Nalidixic acid, *130*, 328
–, Salmonella (SV50)/arabinose-resistant forward mutations, *130*, 81
Naltrexone, *134*, 75
–, hydrochloride, *133*, 228
Naphthalene, *130*, 144
–, influence on benzene clastogenicity, mouse, *128*, 105
1,5-Naphthalenediamine, *133*, 31, 38
α-Naphthoflavone, *129*, 305
–, and activation of mutagens in cooked ground beef by liver microsomes, *140*, 61
–, and emodin, in rat, *125*, 135
–, influence on benzene clastogenicity, mouse, *128*, 105
β-Naphthoflavone, *129*, 303, 305
–, promutagen activation capabilities of S9, abstract, *130*, 236
Naphthoflavones, α- and β-, DMBA, anomalies in germ cells, *136*, 81
Naphthohydroxamic acid, *135*, 140
1-Naphthol, *133*, 112, 170, 175
Naphthomethylhydroxamic acid, *135*, 140
1-Naphthylamine, *133*, 29, 36, 112, 170, 175, 228
–, hydrochloride, *133*, 228
–, rat and hamster assays, *136*, 258
2-Naphthylamine, *131*, 106; *133*, 27, 34, 112, 228; *134*, 7, 101, 104–106
–, Drosophila, *125*, 243
–, in human fibroblasts, metabolic activation by prostaglandin synthase, *127*, 107
–, hydrochloride, *133*, 228
–, metabolic activation of Drosophila fractions, *125*, 229
–, rat and hamster assays, *136*, 258
α-Naphthylamine, *138*, 160
Naphthylhydroxylamine, *133*, 114, 228
α-Naphthylisothiocyanate, *133*, 229
Naproxen, bacterial systems, *138*, 133
Natulan, *125*, 297; *133*, 30, 37, 114, 173, 178, 229; *134*, 7
Neck, congenital anomalies, estimates of detriment, *128*, 82
Nematode, *P. redivivus*, X-chromosome, γ, proton and neutron irradiation, large doses, *140*, 103
–, –, X-linked lethal mutation, effect of dose rate, *140*, 107
Nembutal, *129*, 304
Neocarzinostatin, *N.crassa*, *128*, 127
Neopentanediol diacrylate, *137*, 97
Neopentanediol dimethacrylate, *137*, 97
Neopentyl acrylate, *137*, 96
Neopentyl bromide, *S.typhimurium*, *140*, 71
Neopentyl methacrylate, *137*, 96
D-Neopterin, direct or indirect action, Drosophila, *128*, 147
Netherlands, The, Local Activity Report 1983 EEMS, *130*, 309
Neurospora crassa, endonuclease, damage in repair-inhibited normal human fibroblasts, *129*, 359
–, –, posttreatment of G2 phase CHO cells with, *140*, 111
–, MMS-sensitive mutants, characterization, *125*, 185
–, mutation tests, forward mutation (*ad-3*), *133*, 94
–, –, gene mutation and meiotic nondisjunction, summary, *133*, 90

Neurospora crassa, mutation tests, (*continued*)
–, –, historical overview, *133*, 89
–, –, interpretation of data, *133*, 98
–, –, mammalian activation, *133*, 96
–, –, meiotic nondisjunction, *133*, 97
–, –, recommendations for research, development and validation of tests, *133*, 131
–, –, reverse mutation, *133*, 96
–, –, review, *133*, 87
–, –, role in mutagenicity and carcinogenicity programmes, *133*, 131
–, –, strengths and weaknesses, *133*, 130
–, –, test descriptions, *133*, 94
–, –, test performance, *133*, 118
–, –, two-component heterokaryons, *133*, 95
–, neocarzinostatin, *128*, 127
–, nitrogen mustard, DNA–DNA and DNA–protein cross-linking, *132*, 171
–, spheroplasts, alkylating agents, *125*, 43
–, UV, dose–rate effect, *127*, 39
–, *uvs* strains, UV-induced recessive lethals, *128*, 137
Neutral Red, *125*, 165; *133*, 114
Neutrons, fission, chromosome breakage and loss in Drosophila, hyperthermia, *139*, 119
Newt, X-rays and chemicals, *125*, 275
Nialamide, *133*, 173, 178
Nickel, *134*, 98
–, acetate, *133*, 174, 179
–, chloride, *133*, 11, 31, 39, 174, 179
–, nitrate, *133*, 174, 179
–, refinery workers, retired, aberrations and sister-chromatid exchanges, abstract, *130*, 250
–, sulphate, *S.cerevisiae, 137*, 47
Nicotiana tabacum, maleic hydrazide and its diethanolamine and potassium salts, chronic exposure, *139*, 25
Nicotinamide, adenine dinucleotide, levels, cellular, lack of effect of 4-nitroquinoline 1-oxide, *139*, 155
–, inhibitors of ADP-ribosyl transferase in Chinese hamster ovary cells, *126*, 63
Nicotine, *133*, 114, 173, 177
Nicotinic acid, *138*, 162
–, mouse micronucleus test, pilot experiment, *141*, 167
Nifurpipone, *133*, 229
Nifurprazinum, *133*, 217
Niobium pentachloride, *133*, 11, 32, 39
Niran, *133*, 231
Niridazole, *133*, 27, 33, 114, 229
–, Salmonella, *130*, 81
Nitrilotriacetic acid, *133*, 29, 36
Nitrite, enriched human gastric juice, new anti-H_2, Ames test, abstract, *130*, 261
–, incubation of *Vicia faba*, intercultivar difference, *130*, 391
Nitrite–spice, reaction, mutagen formation, abstract, *130*, 235
5-Nitroacenaphthene, *126*, 230; *133*, 30, 37; *134*, 7
o-Nitroaniline, *133*, 170, 175; *134*, 160
5-Nitro-*o*-anisidine, *133*, 28, 35; *134*, 7
p-Nitroanisole, *133*, 28, 35
–, *O*-demethylase, influence of NADPH-generating system on microsomal mono-oxygenase stability, *129*, 291
Nitroanthracene, *126*, 230
Nitroarenes, in diesel emissions, risk identification, *140*, 1
–, environmental, structural requirements for mutagenicity, *126*, 227
–, mutagenicity, and polarographic reduction potential, relationship, *126*, 139
Nitroaromatic, explosives, and related compounds, *Salmonella typhimurium, 136*, 209
–, and heterocycles, Ames reversion test and a bacterial DNA-repair test, *133*, 187
7-Nitrobenz[*a*]anthracene, *126*, 230
Nitrobenzene, plus derivatives, in *S.typhimurium* and *B.subtilis, 136*, 159
6-Nitrobenzimidazole, *133*, 28, 35
Nitrobenzoic acid, *137*, 75
–, *S. typhimurium, 137*, 71
Nitrobenzoperylene, *126*, 230
Nitrobenzopyrene, *126*, 230
p-Nitrobenzyl chloride, Ames Salmonella plate-incorporation assay, *138*, 145
4-(4-Nitrobenzyl)pyridine, model reactant, abstract, *130*, 174
p-Nitrobenzyl tosylate, Ames Salmonella, plate-incorporation assay, *138*, 145
4-Nitrobiphenyl, *125*, 301; *130*, 144, 145; *133*, 229
p-Nitrobiphenyl, *133*, 114
4-Nitro-1,1′-biphenyl, *133*, 28, 35
2-Nitro-7-bromonaphtho[2,1-*b*]furan, Chinese hamster V79 cells, micronucleus compared with sister-chromatid exchange assay, *130*, 273
5-Nitro-2-(*p*-carbamoylstyryl)furan, *133*, 114
Nitrocarbazole, *126*, 230, 231
Nitrochlorobenzene derivatives, isolated rat hepatocytes, influence of culture time, *131*, 215
Nitrochrysene, *126*, 230
1-Nitrocoronene, *126*, 230
N-Nitrodialkylamines, hepatocyte-mediated metabolic activation, abstract, *130*, 381
Nitro-diaminobenzene, in burdock, desmutagenic factor, *129*, 25
Nitrofluoranthene, *126*, 230
2-Nitrofluorene, *125*, 295; *126*, 230; *130*, 144, 145; *131*, 106; *133*, 30, 37, 114, 229
–, pretreatment of *E.coli* CM891 with ethylenediaminetetraacetate, *140*, 13
–, Salmonella, *130*, 81
–, –, and desmutagenic substance in water extract of grasswrack pondweed, *129*, 33
3-Nitro-9-fluorenone, *126*, 230
5-Nitro-2-furaldehyde, *133*, 229
–, semicarbazone, *133*, 114
5-Nitro-2-furamide, derivatives, *S.typhimurium* and *E.coli, 140*, 169
–, oxime, *133*, 170, 175
–, –, Salmonella and *E.coli, 140*, 169
Nitrofurans, deactivation, activation of MK-0436, Ames test, *136*, 1
Nitrofurantoin, *133*, 170, 175, 229
–, mouse germ cells, *126*, 279
–, resistance, in *E.coli* mutants, by R-plasmid from clinical isolate, *139*, 5

N-(4-(5-Nitro-2-furanyl)-2-thiazolyl) acetamide, *133*, 30, 37
5-Nitro-2-furohydrazide, Salmonella and *E.coli, 140*, 169
–, imide, Salmonella and *E.coli, 140*, 169
5-Nitro-2-furoic acid, *130*, 102; *133*, 170, 175
N-[4-(5-Nitro-2-furyl)-2-thiazolyl]formamide, mutagenicity of urine of various species, *135*, 169
2-(4-(5-Nitro-2-furyl)-2-thiazolyl)hydrazinecarboxaldehyde, *133*, 31, 38
N-[4-(5-Nitro-2-furyl)thiazoyl]formamide, *130*, 327
Nitrogen dioxide, gaseous, SOS function, abstract, *130*, 368
Nitrogen mustard, *125*, 295; *133*, 26, 33, 229; *134*, 7, 72
–, analysis of caffeine and 3-aminobenzamide in Syrian baby hamster kidney cells, *131*, 71
–, damage by Neurospora endonuclease in repair-inhibited normal human fibroblasts, *129*, 359
–, early and late G_1, in human lymphocytes, *139*, 71
–, heterocyclic, in *Salmonella typhimurium, 136*, 185
–, human lymphoblastoid cells, abstract, *130*, 191
–, –, differentially sensitive, *132*, 63
–, mouse spermatogonia, *140*, 193
–, *N.crassa*, DNA–DNA and DNA–protein crosslinking and repair, *132*, 171
–, –, spheroplasts, *125*, 43
–, *N*-oxide, and 3-aminoharman, human cells, *129*, 63
Nitrogen, oxides, rat lung cells, in vivo, *136*, 119
Nitroheterocyclic compounds, effect of liver enzymes, *136*, 1
Nitroimidazoles, deactivation, activation of MK-0436, Ames test, *136*, 1
Nitroimidazo[2,1-*b*]thiazoles, yeast, abstract, *130*, 224
Nitromethoxynaphthofuran, Chinese hamster V79 cells, micronucleus compared with sister-chromatid exchange assay, *130*, 273
3-(5-Nitro-1-methyl-2-imidazolyl-methyleneamino-5-morpholino)-methyl-2-oxazolidone hydrochloride, *133*, 229
1-Nitronaphthalene, *126*, 230; *133*, 27, 34
2-Nitronaphthalene, *126*, 230; *133*, 170, 175, 229
3-Nitro-1,8-naphthalic anhydride, *126*, 230
Nitronaphthofuran, Chinese hamster V79 cells, micronucleus compared with sister-chromatid exchange assay, *130*, 273
–, genotoxic activities, abstract, *130*, 262
5-Nitro-1-naphthonitrile, *131*, 106
3-Nitroperylene, *126*, 230
Nitrophen, *133*, 31, 38
2-Nitrophenanthrene, *126*, 230
p-Nitrophenol, *125*, 302; *133*, 229
Nitrophenylenediamine, *125*, 295, 296; *131*, 106; *133*, 28, 31, 35, 38, 114; *134*, 7
3-Nitropropionic acid, *133*, 30, 37
Nitropyrenes, relationship between polarographic reduction potential and mutagenicity of nitroarenes, *126*, 139
1-Nitropyrene, *126*, 230; *131*, 106
–, derivatives and metabolites, rat liver S9 and bacterial enzymes, *138*, 113
–, in yeast, deficiency in nitroreductase, *139*, 115
2-Nitropyrene, *126*, 230
4-Nitropyridine-*N*-oxide, *130*, 327
Nitroquinoline, *126*, 231; *133*, 114
Nitroquinoline oxide, *125*, 296; *130*, 327; *133*, 26, 33, 114, 171, 176, 229; *134*, 7
Nitroquinoline oxide, (*continued*)
–, and 3-aminoharman, human cells, *129*, 63
–, in Chinese hamster ovary cells, *140*, 209
–, demonstration of UV-type and ionizing radiation-type DNA repair by nucleoid sedimentation technique, *131*, 137
–, in *E.coli*, low concentrations, *126*, 121
–, genetic drift, Ames test, international collaborative study, *130*, 1, 11, 27
–, human fibroblast, Chinese hamster ovary and central mudminnow cells, *129*, 129
–, in vivo, sister-chromatid exchange in rat embryonic cells, *139*, 139
–, lack of effect on cellular NAD levels, *139*, 155
–, mouse lung fibroblast cultures, *132*, 197
–, posttreatment of G2 phase CHO cells with Neurospora endonuclease, *140*, 111
–, and S12 preparations of human lung, *139*, 9
–, Salmonella, *130*, 81
–, in UV-sensitive human clonal cell line, *125*, 55
Nitroreductase, deficiency, and recombinogenic inactivity of 1-nitropyrene for yeast, *139*, 115
N-Nitrosamines, carcinogenic, conversion to mutagens, S9 capabilities, *140*, 147
Nitrosation, products, of amine drugs, Salmonella, *135*, 105
N-Nitrosobenzthiazuron, *133*, 114, 230
N-Nitrosobis(2-oxopropylamine), *133*, 21
N-Nitrosocarbaryl, *133*, 230
–, in *P. waltl, 125*, 275
N-Nitrosochlordiazepoxide, *133*, 230
Nitrosocimetidine, adaptive response in *E.coli* to alkylating agents, *139*, 111
–, cultured human lymphocytes, abstract, *130*, 365
N-Nitroso compounds, Salmonella TA102 and TA104, *141*, 153
N-Nitrosodialkylamines, hepatocyte-mediated metabolic activation, abstract, *130*, 381
N-Nitrosodibutylamine, *135*, 91
–, conversion to mutagens, rat S9 and hepatocytes, *140*, 147
N-Nitrosodiethylamine, *135*, 91; *138*, 160
–, conversion to mutagens, rat S9 and hepatocytes, *140*, 147
–, rat liver cells, in vivo, *140*, 181
N-Nitrosodimethylamine, *135*, 91
–, conversion to mutagens, rat S9 and hepatocytes, *140*, 147
–, inhibitory effect of saturated fatty acids, *135*, 87
–, mouse lung fibroblast cultures, *132*, 197
N-Nitrosodiphenylamine, *134*, 7
N-Nitroso-di-*n*-propylamine, Salmonella, *141*, 153
Nitrosoethylurea, *134*, 74, 79
–, Salmonella, *141*, 153
Nitrosoethylurethane, *133*, 114; *134*, 79
N-Nitroso(4-hydroxybutyl)butylamine, conversion to mutagen, rat S9 and hepatocytes, *140*, 147
1-Nitrosoimidazolidone-2, *133*, 230
N-Nitroso-*N*-methylacetamide, *133*, 229; *134*, 75
N-Nitrosomethylaniline, compounds, quantiative structure–activity relationship approach, *141*, 141
N-Nitrosomethylbenzylamine, conversion to mutagens, rat S9 and hepatocytes, *140*, 147
N-Nitroso-*N*-methylcaprylamide, *133*, 229
N-Nitroso-*N*-methylheptanoic acid amide, *133*, 230

N-Nitroso-*N*-methyllauric acid amide, *133*, 230
N-Nitroso-*N*-methylmyristic acid amide, *133*, 230
N-Nitroso-*N*-methylpropionic acid amide, *133*, 230
Nitrosomethylurea, *125*, 296; *133*; 114, 230; *134*, 74, 79
–, Salmonella, *130*, 81; *141*, 153
Nitrosomethylurethane, *133*, 230; *134*, 74
N-Nitroso-*N*-methylvaleric acid amide, *133*, 230
N-Nitrosomorpholine, *133*, 26, 33; *134*, 72; *135*, 91
–, conversion to mutagens, rat S9 and hepatocytes, *140*, 147
N-Nitrosopiperazine, *134*, 7
Nitrosopiperidine, *133*, 28, 35, 230; *134*, 7, 78; *135*, 91
–, unscheduled DNA synthesis, Syrian hamster embryo cells, *129*, 111
N-Nitroso-4-piperidinol, *134*, 81
N-Nitrosopropoxur, *133*, 230
Nitrosopyrrolidine, *125*, 298; *130*, 54–59; *133*, 30, 37; *134*, 7
–, Salmonella, *141*, 153
N-Nitrososarcosine, *133*, 32, 39
N-Nitroso-1,2,3,6-tetrahydropyridine, *134*, 81
p-Nitrosotoluene, *133*, 230
Nitrosoureas, tri-substituted, SCE analysis in V79-E Chinese hamster cells, *126*, 259
Nitrotoluene, *137*, 75
–, wastewater components generated in production of, Salmonella, *137*, 71
5-Nitro-*o*-toluidine, *133*, 10, 28, 35
Nitrous acid, *133*, 114, 230
Nitrous oxide gas, *138*, 161
Nitrovin, *131*, 106
Nocodazole, in *S.cerevisiae*, eneuploidy, *141*, 15
Non-breeding test, dominant skeletal mutations by ethylnitrosourea, *127*, 93, 189, 191
Norartocarpetin, *135*, 81
Norethynodrel, *133*, 19
Nor-nitrogen-mustard, several test systems, *129*, 47
N-Nor-*N*-propyl-apomorphine, Salmonella and *B.subtilis* strains, *137*, 17
Norway, Local Activity Report 1983 EEMS, *130*, 309
Norwogonin, *135*, 80
Nostoc muscorum, nitrogen-fixing, mutagenicity of a bipyridylium herbicide, *138*, 39
Novobiocin, *130*, 328
–, inhibition of polymerization and ligation of DNA, in vitro, *141*, 69
NRDC-149, *133*, 230
Nuclear-power, and fossil-fueled plants, aberrations in employees, *138*, 205
Nucleic acids, effect of ascorbic acid, *133*, 136
Nucleoid sedimentation method, DNA repair kinetics after low doses of X-rays, *131*, 19
–, UV-type and ionizing radiation-type DNA repair, *131*, 137
Nucleotide, precursor pool imbalance, in mammalian cells, genetic consequences, *126*, 107
Nyquil, *138*, 162
Nystatin, *133*, 114

Occupational exposure, abstracts of papers of EEMS 1983, *130*, 246
Ochratoxin A, *133*, 29, 36, 230
Oestradiol, *133*, 18, 19
Oestriol, *133*, 18
Oil Orange, *133*, 31, 38
Oil, peppermint, Salmonella/mammalian microsome test, *138*, 17
Oils, of plant, in female mouse, pseudo dominant-lethal response, *129*, 235
Oil, pollution, shellfish, *136*, 93
Oil Red, XO, *133*, 31, 38
Oil Yellow, *133*, 29, 36
Olaquindox, Chinese hamster V79 cells, *139*, 199
–, V79 cells, SCE induction, abstract, *130*, 256
Oleic acid, inability to protect against colon carcinogenesis in rat, *140*, 155
Olivacine, *129*, 303, 305
Olive oil, female mouse, pseudo dominant-lethal response, *129*, 235
Oncodazole, in *S.cerevisiae*, aneuploidy, *141*, 15
Oncopeltus fasciatus, radiosensitivity, *127*, 49
Onion, adsorption of pyrolysate mutagens, by, *141*, 150
Oocytes, of rabbit, streptonigrin, *127*, 73
Oosporein, *133*, 231
Opium, and opium alkaloids, pyrolysis, characterization of mutagens, abstract, *130*, 239
Orange-I, *133*, 30, 37
Orange-2, *130*, 145
Orange RN, *133*, 231
Organochlorine pesticides, and derivatives, Ames reversion test and a bacterial DNA-repair test, *133*, 189
Orthene, *133*, 114
Oryctolagus cuniculus, oocytes, streptonigrin, *127*, 73
Oryzias latipes, methyl methanesulphonate and mitomycin C, *125*, 221
Osmium oxide, *131*, 173
Ouabain, *130*, 328
–, resistance, V79 cells, some intercalating agents, *137*, 117
2-Oxetanone, 3,3-dimethyl, *133*, 38
Oxidase, mixed-function, activities, in adult Drosophila, genotype and age, *139*, 51
S-Oxide, mutagenic, chemical oxidation of thioacetamide to, *139*, 1
7-Oxodehydroabietic acid, Salmonella (SV50)/arabinose-resistant forward mutation, *130*, 81
Oxydemetonmethyl, *133*, 231
Oxygen, singlet, in myeloperoxidase-mediated microbial system, abstract, *130*, 386
–, –, petite mutants by photodynamic action of acridine compounds, *125*, 213
–, species, enzymically generated active, Chinese hamster ovary cells, *126*, 265
N-Oxygenation, decreased, of *N*,*N*-dimethylaniline, in rat liver/cell culture system, by dietary selenium deficiency, *126*, 73

Pachytene karyotype, analysis, of *rad*-4 radiation-sensitive mutants, *Caenorhabditis elegans*, *129*, 337
Panagrellus redivivus, X-chromosome, γ, proton and neutron irradiation, large doses, *140*, 103

Panagrellus redivivus, (*continued*)
–, X-linked lethal mutation, effect of dose rate, *140*, 107
Pan troglodytes, karyotypes most similar to those of man, diagrammatic representation, *126*, 90
Paracentrotus lividus, sperm γ-irradiation, non-Hertwig effect, abstract, *130*, 184
Paracetamol, genotoxicity studies, *138*, 21
–, in human fibroblasts, *127*, 111
Parapsoriasis en plaque, enzymatic repair of premutagenic DNA lesions in human epidermis, *131*, 184
Paraquat, *133*, 231
–, dichloride, *133*, 231
–, in nitrogen-fixing *N.muscorum*, *138*, 39
Pararosaniline, *133*, 231
Parathion, *133*, 231; *134*, 7
Parathion-methyl, *133*, 231
Patella vulgata, oil pollution, *136*, 93
Path probability model, for sister-chromatid exchanges by alkylating agents, *126*, 35
Patulin, *133*, 10, 29, 36, 231; *134*, 7
Peanut oil, female mouse, pseudo dominant-lethal response, *129*, 235
Penicillic acid, *133*, 27, 34, 231
Penicillin G, *138*, 162
–, alternative distributions of post-implantation death, dominant-lethal assay, *128*, 199, 201
Penitrem A, *133*, 231
Pentachloronitrobenzene, *133*, 27, 34; *134*, 7
Pentachlorophenol, *133*, 231
Pentaerythrityl tetrachloride, *S.typhimurium*, *140*, 71
1,1′-Pentamethylenebis-3-(2-chloroethyl)-3-nitrosourea, *133*, 231
1,5-Pentanediol diacrylate, *137*, 97
1,5-Pentanediol dimethacrylate, *137*, 97
Pentaphos, protection against radiation in male mouse, *140*, 131
n-Pentyl acrylate, *137*, 96
n-Pentyl methacrylate, *137*, 96
Pepper, sweet, adsorption of pyrolysate mutagens by, *141*, 150
Peppermint oil, Salmonella/mammalian microsome test, *138*, 17
Perchlorobutenoic acid, chloride, Salmonella, *137*, 89
–, Salmonella, *137*, 89
Perfusate, and bile from rat liver, perfused with 1,1-dimethylhydrazine, influence of dietary selenium, *130*, 121
Permethrin, *133*, 231
–, in Salmonella and V79 cells, *137*, 7
Peroxide, and polyphenols, abstract, *130*, 362
–, used in plastic industry, SCE induction in CHO cells, abstract, *130*, 249
4-OH-Peroxy-cyclophosphamide, several test systems, *129*, 47
Perylene, *133*, 170, 175
Pesticides, abstracts of papers of EEMS 1983, *130*, 243
–, Aldicarb, cultured human lymphocytes, *138*, 175
–, chlordimeform, mammalian spot test, *135*, 219
–, dithiocarbamate, Propineb, in mouse micronucleus test, *135*, 193
–, organochlorine, and derivatives, Ames reversion test and a bacterial DNA-repair test, *133*, 189
Petite mutants, 9-anilinoacridines, *S.cerevisiae*, *136*, 223
–, in *S.cerevisiae*, ethidium analogues, *127*, 15
pGW16, UV protection, phleomycin sensitivity in *S.typhimurium*, *140*, 87
pH, different conditions of, *S.cerevisiae* test, *139*, 189
–, influence on convertogenic activity of plant phenolics, *135*, 109
Phage, SV_{40}, DNA, acrylonitrile, strand breaks, *134*, 50
–, transformation, effect of ascorbic acid, *133*, 136
Phaltan, *133*, 171, 177, 223
Phenacetin, *133*, 27, 34
Phenanthrene, *133*, 231
Phenanthridinium, derivatives, in Salmonella, photoaffinity labelling, *127*, 31
Phenelzine·H_2SO_4, *133*, 173, 178
Phenitrothion, mouse micronucleus test, pilot experiment, *141*, 167
Phenobarbital, *129*, 303, 304
–, in benzene-treated mouse, *135*, 225
–, and carcinogenic aromatic amines, in Salmonella, *125*, 23
–, Chinese hamster ovary cells, *138*, 71
–, and cyclophosphamide, several test systems, *129*, 47
–, enzymatic characterization of polynuclear aromatic hydrocarbons activating rat-liver preparations, *125*, 123
–, and 3-methylcholanthrene-like chemical inducers of cytochrome P-450 monooxygenases, *129*, 299
–, pretreatment, microsomal transformation of emodin, *125*, 135
–, –, mouse spot tests with dimethylbenz[*a*]anthracene, *141*, 105
Phenobarbitone, liver cancer in rat or mouse, *133*, 13
Phenol, *133*, 116
–, and alkaline elution of rat testicular DNA, *130*, 283
Phenolics, of plant, influence of pH on convertogenic activity, *135*, 109
L-Phenylalanine mustard, theophylline reversal of alkylator-induced replicon initiation inhibition, *141*, 117
1-Phenyl-3,3-dimethyltriazene, *133*, 116, 231
Phenylenediamine, *133*, 116; *134*, 7
–, dihydrochloride, *133*, 30, 37
2-Phenylethylamine, and dimethylnitrosamine, in *A.thaliana*, *139*, 29
Phenylglycidyl ether, CHO cells, *135*, 159
Phenylhydrazine, *133*, 173, 178; *134*, 160
Phenylhydroxylamine, derivatives, *B.subtilis* and *S.typhimurium*, *136*, 159
Phenylmercuric nitrate, *133*, 116
Phenylmercury acetate, *134*, 77
1-Phenyl-3-methyltriazene, *133*, 116
Phenylnaphthylamine, *133*, 29, 36, 231
o-Phenylphenol, aberrations in CHO-K1 cells, *141*, 95
N-Phenyl-*p*-phenylenediamine, *133*, 28, 35; *134*, 7
Phenylsydnone, *125*, 296
Phenytoin, CHO cells, *138*, 71
Phleomycin, sensitivity, in *S.typhimurium*, UV protecting plasmid pKM101 and pGW16, *140*, 87
Phloroglucinol, *135*, 111
Phorate, *133*, 231

Phorbol, *133*, 231; *138*, 160
Phosphoramide mustard, several test systems, *129*, 47
Photoaffinity labelling, phenanthridinium derivatives in Salmonella, *127*, 31
Photodynamics, acridine compounds, petite mutants in yeast cells, *125*, 213
Photoreactivating enzyme, of *E.coli*, multicopy *phr* plasmid, increase of UV resistance, *131*, 11
Photoreactivation, survival of chick-embryo fibroblasts after, effect of post-UV dark incubation, *132*, 33
Photorepair, in chick-embryo fibroblasts, critique on analysis, *131*, 205
Phycomyces blakesleeanus, spores, *N*-methyl-*N'*-nitro-*N*-nitrosoguanidine, *125*, 195
Physcione, *133*, 30, 37
Piramidone, *133*, 171, 176
Plant, crude extracts, and UV or chemicals, abstract, *130*, 380
–, ethyl methanesulphonate, *134*, 121
–, higher, acrylonitrile, *134*, 52
–, oils, in female mouse, pseudo dominant-lethal responses, *129*, 235
Plasmids, bacterial, localized carcinogen adducts, *126*, 127
–, enhanced genetic drift, Salmonella tester strains, *127*, 183, 185
–, *phr*, multicopy, UV resistance of *recA E.coli* strain, *131*, 11
–, pKM101, associated *muc* genes, *S.cerevisiae, 131*, 197
–, –, frame-shift mutagenesis by acridines in Salmonella, strains with and without, *141*, 83
–, –, influence on mutation, restriction enzyme analysis, abstract, *130*, 170
–, –, R-factor, effect on UV and chemical damage in *E.coli, 141*, 135
–, –, UV protecting, phleomycin sensitivity in *S.typhimurium, 140*, 87
–, R46-mediated error-prone repair, in DNA-damaged cells, compared with *E.coli umu*$^+$-encoded function, *139*, 101
Platinum compounds, relationship between functionality and genetic toxicology of DNA-damaging agents, *133*, 56, 64, 70
cis-Platinum(II) diamminodichloride, *E.coli umu*$^+$-encoded function, *139*, 101
Pleurodeles waltl, micronucleus test, abstract, *130*, 218
–, X-rays and chemicals, *125*, 275
Poisoning, self-, lack of effect on subsequent reproductive outcome, *127*, 175
Poland, Local Activity Report 1983 EEMS, *130*, 310
Polarographic reduction potential, and mutagenicity of nitroarenes, relationship, *126*, 139
Poliomyelitis, patients, aberrations and SCEs in peripheral blood lymphocytes, *141*, 55
Pollutants, of air, simple in situ test system, *139*, 177
Poly(ADP–ribose), metabolism, Chinese hamster ovary cells, EM9, *128*, 213
Polychlorinated biphenyl, pretreatment, microsomal transformation of emodin, *125*, 135
Polycyclic aromatics, *130*, 102
Polycyclic aromatic hydrocarbons, Ames reversion test and bacterial DNA-repair test, *133*, 186
Polycyclic aromatic hydrocarbons, (*continued*)
–, derivatives, Chinese hamster ovary cells, *129*, 365
–, methyl- and fluoro-substituted derivatives, HepG2 cell-mediated assay, *136*, 65
–, photolysis with nitrite, abstract, *130*, 376
–, presence in creosote P1, *130*, 153
Polycyclic aromatic sulphur heterocycles, Salmonella, *135*, 97
Polycyclic hydrocarbons, and aromatic amines, metabolic activation by Drosophila fractions, *125*, 229
Polymorphonuclear neutrophils, role of oxygen-free radicals and their secondary production, letters to Editor, *139*, 211; *141*, 211
Polynuclear aromatic hydrocarbons, activating rat-liver preparations, enzymatic characterization, *125*, 123
–, chloro derivatives, Salmonella, *135*, 21
Polyphenols, and peroxide, abstract, *130*, 362
Polyram, *133*, 228
Ponceau MX, *134*, 7
Ponceau R, *133*, 31, 38
Ponceau 3R, *133*, 11, 31, 38; *134*, 7; *136*, 35
Ponceau 4R, *133*, 231
Ponceau SX, rat and hamster assays, *136*, 258
Pongo pygmaeus, karyotypes most similar to those of man, diagrammatic representation, *126*, 90
Population, genetics, effect of newly induced mutations on fitness of genotypes, yeast, *129*, 327
–, monitoring, methods and applications, Meeting Report, *130*, 73
Pork, pan-broiled, high mutagenic activity, *135*, 149
Potablan, *133*, 231
Potamogeton oxyphylus Miquel, water extract, desmutagenic substance, *129*, 33
Potassium, chromate, *133*, 174, 179; *134*, 6; *138*, 161
–, cyanide, *133*, 174, 179; *134*, 161
–, dichromate, *130*, 103
–, fluoride, *133*, 116
–, maleic hydrazide, tobacco plant, *139*, 25
–, permanganate, *133*, 116, 174, 179; *134*, 161
Potorous tridactylus, cells, UV and cycloheximide, *140*, 199
–, effect of post-UV dark incubation on survival after photoreactivation, *132*, 33
Praziquantel, *133*, 231
Prednisolone, leukaemia patients, micronucleus test, *130*, 113
Prefix, *133*, 232
Preforan, *133*, 232
Pregnenolone-16α-carbonitrile, *129*, 303, 305
Premerge, *133*, 221
Primetin, *135*, 80
Primidone, Chinese hamster ovary cells, *138*, 71
Primuletin, *135*, 81
Probenecid, *133*, 232
Procarbazine, *133*, 229; *134*, 74, 79
–, heritable translocations in mouse, abstract, *130*, 175
–, hydrochloride, *133*, 173, 178
–, –, Chinese hamster ovary cells, *136*, 137
–, –, postmeiotic male germ cells of mouse, abstract, *130*, 366
–, mouse spermatogonia, *140*, 193
–, in pregnant mouse, *126*, 47
Procyazine, *136*, 234

Proflavine, *133*, 232; *134*, 7, 78
–, *E.coli umu*$^+$-encoded function, *139*, 101
–, hemisulphate, *133*, 232
–, hydrochloride, *133*, 30, 37
–, Salmonella, *131*, 193
–, sulphate, *131*, 106
–, in yeast cells, petite mutants, *125*, 213
Progesterone, *133*, 10, 18, 19, 26, 33
Prokaryotes, ethyl methanesulphonate, *134*, 118
Prolactin, *133*, 18
Propachlor, *133*, 232; *136*, 234
Propane sultone, *130*, 327; *133*, 30, 37, 232; *134*, 7
Propanil, *133*, 232
Propanol, Chinese hamster V79 cells, micronucleus compared with sister-chromatid exchange assay, *130*, 273
Prophage, induction in *H.influenzae*, chemical and physical agents, *125*, 15
Prophage λ, lysogenic induction, methodologies for determination of genetic effects in *E.coli* K12 strains, *125*, 164
Propidium iodide, azido analogue, Salmonella, *127*, 31
–, petite and sectored induction in *S.cerevisiae, 126*, 145
Propineb, *133*, 232
–, in mouse micronucleus test, *135*, 189
β-Propiolactone, *130*, 144, 145, 327; *133*, 26, 33, 116, 172, 177, 232; *134*, 5, 72
Propionic acid, *138*, 161
–, Ca, *138*, 161
Propoxur, *133*, 213
Propoxyphen chlorhydrate, *129*, 305
Propranolol, drug synergism or antagonism in induction of diploid meiotic products in *S.cerevisiae, 141*, 161
1-1′-Propylenebis-3-(2-chloroethyl)-3-nitrosourea, *133*, 232
Propyleneimine, *130*, 327; *133*, 27, 34, 232; *134*, 8
Propylene oxide, *133*, 27, 34, 116
Propylenethiourea, mouse micronucleus test, *135*, 193
Propyl gallate, inhibition of DMBA-induced chromosomal breaks in vivo, *136*, 247
Propyl methanesulphonate, *134*, 157
N-Propyl-*N*-nitrosourea, *133*, 232
Propylthiouracil, *133*, 18
Prostaglandin E_2, *133*, 172, 177
Prostaglandin synthase, metabolic activation, of aromatic amines, human fibroblasts, *127*, 107
–, –, of urinary tract carcinogens, to DNA-damaging products, abstract, *130*, 235
Protein, dietary, concentration, effect on S9 bioactivation of 7,12-dimethylbenz[*a*]anthracene, in Salmonella assay, *126*, 19
–, *recA*, signal of induction of, in *E.coli, 131*, 53
PR toxin, *133*, 114, 232
–, Salmonella, *130*, 81
Prurigo, enzymatic repair of premutagenic DNA lesions in human epidermis, *131*, 184
Psoralen, *133*, 232
–, in the dark, SFIA SOS repair function, *131*, 111
–, derivatives, double irradiation protocol, in yeast strains, abstract, *130*, 196
–, plus UVA, relationship between functionality and genetic toxicology of DNA-damaging agents, *133*, 54, 62, 69
Psoriasis, enzymatic repair of premutagenic DNA lesions in human epidermis, *131*, 184
Pteridines, direct of indirect action, lethal mutations in Drosophila, *128*, 147
Pterin, direct or indirect action, Drosophila, *128*, 147
Pulegone, Salmonella/mammalian microsome test, *138*, 17
Pyramin, *133*, 232
Pyrene, *130*, 57, 59, 144, 328
–, human epithelial teratoma cells, HGPRT locus, *130*, 127
–, photochemical reaction, with nitrogen dioxide, *130*, 364, 382
–, Salmonella, *135*, 21
Pyrethroids, micronucleus test, abstract, *130*, 244
–, synthetic, Salmonella and V79 cells, lack of mutagenicity, *137*, 7
Pyridinecarbo-*O*-acetylhydroxamic acid, *135*, 140
Pyridinecarbohydroxamic acid, *135*, 140
–, derivatives, mutagenicity, *135*, 139
Pyridine-2-carbo-*N*-methylhydroxamic acid, *135*, 140
Pyridine-2,4-dicarbohydroxamic acid, *135*, 140
Pyridine, influence on benzene clastogenicity, mouse, *128*, 105
Pyridopsoralens, in the dark, Salmonella, *136*, 49
–, monofunctional, new, two, photoaddition of, human skin fibroblasts, *138*, 63
Pyrido[3,4-*c*]psoralen, human skin fibroblasts, *138*, 63
Pyridoxin, *138*, 162
1-(Pyridyl-3)-3,3-dimethyltriazene, *133*, 232
1-(Pyridyl-3-*N*-oxide)-3,3-dimethyltriazene, *133*, 232
Pyrilamine, maleate, *125*, 302
–, rat hepatocytes, *135*, 131
–, Salmonella, *135*, 105
Pyrimethamine, *134*, 8
Pyrimidine, dimers, removal, rate of, human and xeroderma pigmentosum cells, *132*, 21
–, incorporation, halogenated, DNA-strand breaks associated with, *131*, 129
–, insertase, activity, absence of, in *E.coli* extracts plasmid DNA containing apyrimidinic sites, *132*, 87
Pyrogallol, *135*, 111
Pyrolysate, mutagens, adsorption by vegetable fibres, *130*, 365; *141*, 149
–, of natural substances, Salmonella TA97, abstract, *130*, 377
Pyrolysis, of amino acids, factors determining production of mutagenic compounds, abstract, *130*, 233
Pyronin Y, and caffeine, in *Allium cepa* root-tip cells, *127*, 119

Quercetin, *131*, 106; *133*, 173, 177, 232; *135*, 80
–, and Ca^{2+}-calmodulin system, abstract, *130*, 373
–, in cultured mammalian cells, *136*, 9
–, effect of pH on mutagenicity, abstract, *130*, 362
–, mouse micronucleus test, pilot experiment, *141*, 167
–, in rat-liver cytosol, superoxide dismutase as enhancing factor, *129*, 19
Quinacrine, Drosophila *zeste* somatic eye mutation test, *138*, 169
Quindoxin, Chinese hamster V79 cells, *139*, 199
–, V79 cells, SCE induction, abstract, *130*, 256
Quinolines, synthetic, Ames test, *137*, 29
Quinoline carbohydroxamic acid, *135*, 140

Quinoline carbohydroxamic acid, (*continued*)
–, derivatives, mutagenicity, *135*, 139
Quinoline-2,4-dicarbohydroxamic acid, *135*, 140
Quinoline-*N*-oxides, 4-substituted, Ames reversion test and a bacterial DNA-repair test, *133*, 188
Quinoxalines, synthetic, Ames test, *137*, 29
Quintozene, *133*, 232

Rabbit, bone-marrow cells, in vivo sister-chromatid exchange analysis, *139*, 57
–, oocytes, streptonigrin, *127*, 73
Radiosensitivity, enhanced, for induction of translocations in treated mouse stem cell spermatogonia, *128*, 207
–, four insect species, *127*, 49
Radish, Japanese, adsorption of pyrolysate mutagens by, *141*, 150
Ram, seminal vesicle microsomes, and aromatic amines, in human fibroblasts, *127*, 107
Ranitidine, HCl, *133*, 173, 177
–, metaphase analysis of mouse spermatogonial cells, abstract, *130*, 258
Rat, agents that increase incidence of liver cancer, *133*, 12
–, albino, male, lymphocytes, apholate treatment, *141*, 175
–, antimutagenic effect of ethoxyquin, *135*, 125
–, benzene vapour, dosimetric studies, *135*, 203
–, bone-marrow cells, in vivo, sterigmatocystin, *139*, 203
–, brain DNA, protection of vitamin E against methyl ethyl ketone peroxide-induced peroxidative damage, *126*, 113
–, cells, EMS, *134*, 128
–, DEN- and ENU-treated, cells containing O^6-ethyldeoxyguanosine, immunohistochemical localization, abstract, *130*, 208
–, dimethylhydrazine-injected, faecal mutagens and intestinal tumours, *139*, 143
–, embryonic cells, in vivo 4-nitroquinoline 1-oxide, *139*, 139
–, ethyl carbamate, ethyl *N*-hydroxycarbamate and vinyl carbamate, *126*, 159
–, fibroblasts, UV-induced DNA excision repair, kinetics, *132*, 129
–, Fischer-344, normal and splenectomized, triethylenemelamine, cyclophosphamide or urethane, *127*, 169
–, hepatocarcinogenesis, changes in nucleolar Ag stainability in NORs, abstract, *130*, 180
–, hepatocytes, adult, primary cultures, Trp-P-1 and Trp-P-2, *137*, 123
–, –, benzidine-congener-derived azo dyes, *136*, 147
–, –, methapyrilene and related antihistamines, *135*, 131
–, –, (m)ethylating agents, damage, relation to alkylation pattern of liver DNA, abstract, *130*, 204
–, –, nitrochlorobenzene derivatives, influence of culture time, *131*, 215
–, –, primary culture/DNA-repair assays, azo dyes and their reduction products, *136*, 255
–, –, –, morpholine, 3-morpholinone and *N*-substituted morpholines, *136*, 153
–, –, unscheduled DNA synthesis, monolayer culture, *126*, 205
–, inability of oleic acid to protect against colon carcinogenesis, *140*, 155
–, in vivo liver cells, *N*-nitrosodiethylamine, *140*, 181

Rat, (continued)
–, isolated hepatocytes and liver supernatant, mutagenicity of benzidine and 4-aminobiphenyl, *129*, 13
–, liver, cell culture system, dietary selenium deficiency, decreased *N*-oxygenation of *N*,*N*-dimethylaniline and increase of mutagenicity of dimethylnitrosamine, *126*, 73
–, –, collagenase perfusion, DNA damage and repair in hepatocytes, *141*, 113
–, –, enzymes, metabolism of acridine, *140*, 7
–, –, epithelial cell lines, chemical mutagens, *130*, 53
–, –, microsomes, foetal, indirect mutagens in Salmonella, abstract, *130*, 378
–, –, RL-19 cells, incorporation of liposomes, application of genotoxins of low water solubility, *139*, 207
–, lung cells, nitrogen oxides, in vivo, *136*, 119
–, measurement of genotoxic activity following inhalation exposure to dimethylnitrosamine, *141*, 123
–, paternal ethylene dibromide, *139*, 133
–, specific-locus mutations with hepatocarcinogens, abstract, *130*, 187
–, Sprague–Dawley, stage-specific induction of sister-chromatid exchanges in utero, *128*, 17
–, testicular DNA, alkaline elution, cross-links, *130*, 295
–, –, –, strand breaks, *130*, 283
–, urine, dermal application of 1,3-diaminobenzene, *138*, 137
–, –, and faeces, genotoxic carcinogens, abstract, *130*, 222
–, –, *N*-[4-(5-nitro-2-furyl)-2-thiazolyl]formamide or 2-amino-4-(5-nitro-2-furyl)thiazole, *135*, 169
recA protein, signal of induction, in *E.coli*, *131*, 53
Recombination, male, in Drosophila, *126*, 245
Reproduction, population monitoring, methods and applications, *130*, 73
–, studies, acrylonitrile, *134*, 53
Resacetophenone, *135*, 82
Reserpine, *133*, 10, 26, 33
Resmethrin, *133*, 233
–, in Salmonella and V79 cells, *137*, 7
Resorcinol, *133*, 116; *135*, 111
–, diglycidyl ether, CHO cells, *135*, 159
Respiration deficiency, petite mutants by photodynamic action of acridine compounds, *125*, 213
Respiration, shutoff, in *E.coli* K12, far-UV and mitomycin C, *139*, 107
Respiratory system, congenital anomalies, estimates of detriment, *128*, 86
Retinoblastoma, patients, UV- and mitomycin C-induced sister-chromatid exchanges in fibroblasts, *141*, 101
Retrorsine, *133*, 30, 37
Rhodamine B, *133*, 27, 34, 233
Rhodamine 6G, *133*, 30, 37
Riboflavin, *133*, 173, 177; *138*, 162
Ribostamycin, *133*, 233
Rifampicin, resistance, influence of *recF* on spontaneous mutation in *E.coli*, *140*, 67
–, Sarcoma-180 mouse ascites cells, *141*, 171
Rolaids, *138*, 162
Ronstar, *133*, 233
p-Rosaniline, *130*, 102; *133*, 170, 175; *134*, 160
Rose bengal, *133*, 233

Rubber, industry, biological monitoring of workers, *138*, 99, 105
–, –, lymphocyte studies, abstract, *130*, 246
Rubratoxin B, *133*, 233
Rumania, Local Activity Report 1983 EEMS, *130*, 311

S/433, cytotoxic antibiotic, abstract, *130*, 255
S9, differences in SCEs between human whole blood cultures and purified lymphocyte cultures, *130*, 403
–, fraction, of rat liver and intestine, effect of glutathione and uridine-5′-diphosphoglucuronic acid on tryptophan pyrolysis products, *139*, 15
–, and hepatocytes, from uninduced rats, conversion of carcinogenic *N*-nitrosamines to mutagens, *140*, 147
–, liver preparations, from mouse and chicken, Salmonella and yeast tests, *140*, 75
–, low cytotoxicity, cyclophosphamide metabolic activation, human lymphocyte assay, *130*, 411
S12, of human lung, metabolic activation of mutagens, *139*, 9
Saccharin, *133*, 116, 233; *134*, 8, 73; *138*, 162
–, Na salt, *133*, 172, 177
–, *S.cerevisiae*, abstract, *130*, 179
Saccharomyces cerevisiae, acrylonitrile, *134*, 52
–, analysis of replication of diepoxybutane-alkylated DNA in *rad3* mutant, *132*, 161
–, aneuploidy by oncodazole and acetone, *141*, 15
–, 9-anilinoacridines, antimitochondrial effects, *136*, 223
–, 5-azacytidine, *139*, 21
–, cellular metabolism, abstracts of papers of EEMS 1983, *130*, 223
–, chloral hydrate, *141*, 19
–, cisplatin, *127*, 23
–, D7, different pH conditions, *139*, 189
–, –, genetic risk detection, abstract, *130*, 207
–, diallate and triallate herbicides, *136*, 173
–, drug synergism or antagonism in induction of diploid meiotic products, *141*, 161
–, erythrosine, *138*, 153
–, ethidium analogues, petite induction, *127*, 15
–, excision-deficient and -proficient, loss of chemically induced mutations, abstract, *130*, 183
–, fitness of genotypes and populations, effect of newly induced mutations, *129*, 327
–, genetic activity, of chemicals, Gene-Tox Program report, *133*, 199
–, –, chemicals tested, *133*, 211
–, –, interpretation of data, *133*, 209
–, –, metabolic activation, *133*, 207
–, –, –, body-fluid analysis, *133*, 208
–, –, –, chemical activation, *133*, 208
–, –, –, endogenous activation, *133*, 207
–, –, –, host-mediated assay, *133*, 208
–, –, –, S9, *133*, 208
–, –, –, tissue bioassay, *133*, 208
–, –, technical details, *133*, 236
–, –, test descriptions, *133*, 202
–, –, –, aneuploidy, *133*, 206
–, –, –, cytoplasmic mutations, *133*, 207
–, –, –, forward mutation, *133*, 202
Saccharomyces cerevisiae, genetic activity, test descriptions, (*continued*)
–, –, –, mitotic crossing-over, *133*, 205
–, –, –, mitotic gene conversion, *133*, 204
–, –, –, mitotic recombination, *133*, 203
–, –, –, reverse mutation, *133*, 203
–, –, test performance, *133*, 210
–, 11 herbicides and 13 combinations, *136*, 233
–, influence, of NADPH-generating system of microsomal mono-oxygenase stability during incubation, *129*, 291
–, –, of pH on convertogenic activity of plant phenolics, *135*, 109
–, introduction of plasmid pKM101-associated *muc* genes, *131*, 197
–, manganese sulphate and nickel sulphate, *137*, 47
–, monofunctional alkylating agents, abstract, *130*, 176
–, 1-nitropyrene, deficiency in nitroreductase, *139*, 115
–, petite mutants by photodynamic action of acridine compounds, *125*, 213
–, possible inducibility of error-prone repair, *129*, 3
–, propidium iodide, petite and sectored induction, *126*, 145
–, repair of alkylation-induced damage, abstract, *130*, 197
Safrole, *125*, 302; *130*, 145; *133*, 28, 35, 233; *134*, 8
–, analogues, spice–nitrite reaction products, abstract, *130*, 378
Salicylic acid, *133*, 233; *135*, 111
Saline, with or without S9, human lymphocyte in vitro cytogenetic assay, positive and negative control observations, *141*, 59
Saliva, human, and environmental carcinogens, abstract, *130*, 374
Salmon, canned, occurrence of mutagens, *141*, 131
Salmonella typhimurium, acrylonitrile, *134*, 50
–, Ames assay results, statistical evaluation, procedure for, *128*, 115
–, Ames reversion test, *135* compounds, review, *133*, 161
–, Ames test, genetic drift, international collaborative study, *130*, 1, 11, 27
–, Ames test modelling, abstract, *130*, 217
–, Ames test, potential chemical carcinogens, evaluation, *130*, 141
–, amine drugs and their products of nitrosation, *135*, 105
–, 2,4,5-T-amino acid conjugates, *136*, 217
–, apomorphine and various catecholamines, *137*, 17
–, assay, characterization of small intestine microsomal preparation, abstract, *130*, 216
–, –, modified, benzidine and benzidine-congener dyes, and selected monoazo dyes, *136*, 33
–, benzidine-congener-derived azo dyes, primary rat hepatocytes, *136*, 147
–, cadmium, synergism with two nitrosamines, *138*, 9
–, caramel, *139*, 161
–, chloro derivatives of polynuclear aromatic hydrocarbons, *135*, 21
–, conversion of carcinogenic *N*-nitrosamines to mutagens, S9, *140*, 147
–, Crystal Violet, *140*, 165
–, cyclophosphamide, *129*, 47
–, desmutagenic factor isolated from burdock, *129*, 25

Salmonella typhimurium, (*continued*)
–, 2-(2′,4′-diaminophenoxy)ethanol, *135*, 31, 49
–, dichloromethane, exposure time and metabolic activation, *136*, 107
–, dioxane and trioxane, *136*, 169
–, diphenylhydantoin and its major metabolite, *137*, 79
–, direct mutagenic activity of α,ω-dihalogenoalkanes, *141*, 11
–, effect of acetyl-coenzyme A on mutagenicity of benzidines, *137*, 39
–, effects of amount and type of agar on spontaneous revertants, *137*, 33
–, effect of glutathione and uridine-5′-diphosphoglucuronic acid on tryptophan pyrolysis products, *139*, 15
–, effect of liver enzymes on mutagenicity of nitroheterocyclic compounds, *136*, 1
–, environmental nitroarenes, structural requirements for mutagenicity, *126*, 227
–, enzymatic characterization of polynuclear aromatic hydrocarbons activating rat-liver preparations, *125*, 123
–, ethylphenylglycidate, *138*, 1
–, evaluation of test data in published literature, statistical procedures, *134*, 1
–, faecal mutagens, subjects consuming mixed-western diet, *135*, 11
–, flavones, chromones and acetophenones, *135*, 77
–, formation of 2-amino-3,8-dimethylimidazo[4,5-*f*]quinoxaline, heating creatinine, glycine and glucose, *126*, 239
–, formation of 2-amino-3,7,8-trimethylimidazo[4,5]quinoxaline, *140*, 55
–, furocoumarins, in the dark, *136*, 49
–, heavy metals, abstract, *130*, 168
–, 11 herbicides and 13 combinations, *136*, 233
–, 16 heterocyclic nitrogen mustards, *136*, 185
–, hexachlorobutadiene, perchlorobutenoic acid and perchlorobutenoic acid chloride, *137*, 89
–, high mutagenic activity formed in pan-broiled pork, *135*, 149
–, and human fibroblasts, diphtheria toxin and thioguanine resistance, by carcinogens, *125*, 95
–, human fibroblast interferon, *139*, 183
–, hydrogen peroxide-dependent activation of benzidine to mutagenic species, *141*, 23
–, isomeric mononitrobenzo[*a*]pyrenes, *140*, 81
–, isoniazid, in vivo and in vitro biotransformation, *137*, 61
–, liver, kidney and small-intestine microsomal-mediated mutagenicity of carcinogenic aromatic amines, *125*, 23
–, malondialdehyde, DNA cross-links, *129*, 39
–, 'Malti-Towa' (powder) and maltitol crystal, *137*, 133
–, mammalian microsome assay, mutagens in rat urine after dermal application of 1,3-diaminobenzene, *138*, 137
–, –, *N*-nitrosomethylaniline compounds, quantitative structure–activity relationship, *141*, 141
–, –, peppermint oil, *138*, 17
–, metabolic activation and deactivation, by preparations of human lung parenchyma and bronchial tree, *139*, 9
–, 3-methylcholanthrene- and phenobarbital-like chemical inducers of cytochrome P-450 monooxygenases, *129*, 299
–, microsome assay, aliphatic acrylate esters, *137*, 95

Salmonella typhimurium, microsome assay, (*continued*)
–, –, diallate and triallate herbicides, *136*, 173
–, –, diesel exhaust particulate, *135*, 1
–, –, effect of dietary protein concentration on S9 bioactivation of 7,12-dimethylbenz[*a*]anthracene, *126*, 19
–, –, emodin in V79 Chinese hamster cells, *138*, 219
–, –, intercultivar difference of fava beans after incubation with nitrite, *130*, 391
–, –, methyl-substituted tri- and tetracyclic aromatic sulphur heterocycles, *135*, 97
–, –, plates, effect of storage on 4°, *141*, 7
–, –, urine mutagenicity to monitor coal liquefaction workers, *136*, 201
–, *mono*methylamino and *N*-cyanoethyl analogues of 4-dimethylaminoazobenzene and 6-dimethylaminophenylazobenzthiazole, *128*, 11
–, mutagenicity, and desmutagenic substance in water extract of grass-wrack pondweed, *129*, 33
–, mutatest, validation of RK test, *130*, 107
–, neopentyl bromide, and pentaerythrityl tetrachloride, *140*, 71
–, new automatic bacterial assay, abstract, *130*, 208
–, new strain reverted by mitomycin C and *N*-methyl-*N*′-nitro-*N*-nitrosoguanidine, *130*, 315
–, nitroarenes in diesel emissions, risk identification, *140*, 1
–, nitroaromatic explosives and related compounds, *136*, 209
–, nitrobenzoic acids, and other wastewater components, *137*, 71
–, *N*-[4-(5-nitro-2-furyl)-2-thiazolyl]formamide or 2-amino-4-(5-nitro-2-furyl)thiazole, *135*, 169
–, 1-nitropyrene, derivatives and metabolites, rat liver S9 and bacterial enzymes, *138*, 113
–, non-steroidal anti-inflammatory drugs, *138*, 133
–, oxidation of thioacetamide to *S*-oxide, *139*, 1
–, paracetamol, mouse liver microsomes, *138*, 21
–, phenanthridinium, derivatives, photoaffinity labelling, *127*, 31
–, phenylhydroxylamine derivatives, *136*, 159
–, phleomycin sensitivity, UV protecting plasmid pKM101 and pGW16, *140*, 87
–, plate-incorporation assay, *p*-substituted benzyl derivatives, *138*, 145
–, presence of benzo[*a*]pyrene and benz[*a*]anthracene in creosote P1, *130*, 153
–, protection of H_2O_2 by catalase induction, *141*, 145
–, pyridine- and quinoline-carbohydroxamic acid derivatives, *135*, 139
–, relationship between polarographic reduction potential and mutagenicity of nitroarenes, *126*, 139
–, S9 liver preparations from mouse and chicken, *140*, 75
–, sensitivity of L-arabinose resistance assay, abstract, *130*, 212
–, several derivatives of dipyrido[1,2-*a*:2′,3′-*d*]imidazoles, *136*, 23
–, shellfish exposed to oil pollution, *136*, 93
–, in situ microbial test system for airborne workplace mutagens, *130*, 45
–, in situ mutagenicity test system for detection of air pollutants, *139*, 177

Salmonella typhimurium, (*continued*)
–, study of 135 compounds, table, *133*, 170
–, SV50, arabinose-resistant forward mutation assay, validation, *130*, 79
–, synthetic pyrethroids, lack of mutagenicity, *137*, 7
–, synthetic quinolines and quinoxalines, *137*, 29
–, tester strains, plasmid-enhanced genetic drift, *127*, 183, 185
–, testing with TA97 and TA102 of 30 damaging compounds, negative with other Salmonella strains, *134*, 159
–, *trpE8*, 9-aminoacridine, SOS functions, *131*, 115
–, unscheduled DNA synthesis of rat hepatocytes, *126*, 205
–, volatile mutagens, by aliphatic halogenated hydrocarbons, *136*, 55
–, wild-type uvrB and polA strains, frame-shift mutagenensis by acridines, with and without plasmid pKM101, *141*, 83
–, TA97, acridines, *131*, 193
–, TA98, adsorption of pyrolysate mutagens by vegetable fibres, *141*, 149
–, –, aminofluorene derivatives, *131*, 89
–, –, depletion of reduced glutathione level, in mouse, hepatoma by feeding on a high level dose of sorbic acid, *130*, 267
–, –, effect of Trp-P-1 and Trp-P-2 in rat hepatocytes, *137*, 123
–, –, superoxide dismutase, enhancing factor for quercetin mutagenesis in rat-liver cytosol, *129*, 19
–, TA98 and TA100, Japanese seaweed plus breast and colon carcinogens, *127*, 113
–, TA98 and TA1538, antimutagenic effects of germanium oxide, on Trp-P2-induced frame-shift, *125*, 145
–, TA100, benzo[*a*]pyrene and selenium *127*, 9
–, –, chromium(VI) and apparent phenotypic reversion, *138*, 127
–, –, 5-nitro-2-furamide derivatives, *140*, 169
–, TA102 and TA104, *N*-nitroso compounds, *141*, 153
–, TA1537, microsomal transformation of emodin into direct mutagens, *125*, 135
–, TA1538, benzidine and 4-aminobiphenyl, metabolic activation, *129*, 13
Sarcoma-180, mouse ascites cells, rifampicin, *141*, 171
Sarcosine, *133*, 116
Sardines, mutagens in canned foods, *141*, 131
Scarlet F, *133*, 233
Schizandrol, *129*, 304
Schizosaccharomyces pombe, UV-induced mutations, effect of spermine, *125*, 205
Scutellarin, *135*, 81
SD50093, *136*, 234
Sea urchin, sperm γ-irradiation, non-Hertwig effect, abstract, *130*, 184
Seaweed, Japanese, extracts, and breast carcinogens, in Salmonella, *127*, 113
Selenium, and benzo[*a*]pyrene, in Salmonella, *127*, 9
–, deficiency, dietary, *N*-oxygenation of *N*,*N*-dimethylaniline and increased damage by dimethylnitrosamine in rat liver/cell culture system, *126*, 73
–, dietary, perfusate and bile from rat liver, perfused with 1,1-dimethylhydrazine, *130*, 121
Sencor, *133*, 233
Serotonin–creatinine sulphate complex, *134*, 74, 79
Serum, horse, 10%, in cloning $TK^{-/-}$ mutants of mouse lymphoma cells, *140*, 215
Sesame oil, female mouse, pseudo dominant-lethal response, *129*, 235
Shellfish, exposed to oil pollution, *136*, 93
Siduron, *133*, 233
Silicic acid, degradation of DNA, *141*, 1
Simazine, *133*, 233; *134*, 78; *136*, 234
Simian virus, apurinic sites, cause of mutations, *129*, 141
–, 40, *cis*-diamminedichloroplatinum(II)-treated, DNA, host-cell reactivation in human fibroblasts, *132*, 181
–, –, UV-irradiated, molecular analysis of damage, abstract, *130*, 166
–, –, –, replicative intermediates, *132*, 1
Sine off, *138*, 162
Sinutab, *138*, 162
Sister-chromatid exchanges, in betel and tobacco chewers, *139*, 79
–, in cultured lymphocytes of ewes and their newborn lambs, *140*, 117
–, distribution in human lymphocytes, *125*, 263
–, frequency, in lymphocytes of systemic lupus erythematosus patients, *128*, 167
–, in lymphocytes of smokers, *138*, 197
–, possible polarity breakage, abstract, *130*, 381
–, report on control subjects and ethylene oxide-exposed workers, *129*, 77, 89
–, studies, in vivo, single injection of BrdU in melted agar, *141*, 189
–, and thioguanine resistance, in V79 cells, carbaryl plus S9 mix, *125*, 269
–, in utero, stage-specific, in rat, *128*, 17
β-Sitosterol, inhibition of DMBA-induced chromosomal breaks in vivo, *136*, 247
Skeletal system, congenital anomalies, estimates of detriment, *128*, 92
SKF-525, *129*, 304
SKF-525A, in benzene-treated mouse, *135*, 225
–, and emodin, in rat, *125*, 135
Smoke, abstracts of papers of EEMS 1983, *130*, 237
Smoker's urine, time–course study, abstract, *130*, 368
Smoking, distribution of sister-chromatid exchanges in human lymphocytes, *125*, 263
–, and ethylene oxide exposure, sister-chromatid exchanges, *129*, 77, 89
–, and micronuclei in lymphocytes with preserved cytoplasm, *130*, 63
–, sister-chromatid exchanges in lymphocytes, *138*, 197
–, urine mutagenicity, coal liquefaction workers, *136*, 201
–, of workers in rubber industry, biological monitoring, *138*, 99, 105
Sodium arsenite, *133*, 174, 178; *134*, 161
Sodium azide, *130*, 103, 144, 145; *133*, 174, 179, 233; *138*, 160
–, petite mutants by photodynamic action of acridine compounds, *125*, 213
Sodium bisulfite, *138*, 161
–, and instant coffee, cultured Chinese hamster lung cells, *141*, 109

Sodium butyrate, pretreatment, exposure of V79 cells to daunorubicin and UV, *140*, 175
Sodium chloride, *133*, 173, 178
Sodium chlorite, mouse micronucleus test, pilot experiment, *141*, 167
Sodium cyclamate, *134*, 78
Sodium dichromate, *133*, 32, 39, 174, 179; *134*, 6, 160
–, and S12 preparations of human lung, *139*, 9
Sodium diethyldithiocarbamate, *133*, 172, 177
Sodium-*p*-dimethylaminobenzenediazosulphonate, *133*, 29, 36
Sodium dodecyl sulphate, synergistic effect, propidium iodide in *S.cerevisiae, 126*, 145
Sodium fluoride, *133*, 116, 233; *134*, 80
–, cultured human diploid fibroblasts, *139*, 193
–, cytogenetic effects, abstract, *130*, 367
–, in human lymphocyte cultures, rat liver S9, *129*, 195
–, unscheduled DNA synthesis in cultured human oral keratinocytes, *140*, 43
Sodium hydrogen carbonate, *133*, 174, 178
Sodium hydroxide, *133*, 173, 178
Sodium nitrate, *138*, 161
Sodium nitrite, *133*, 174, 179, 233; *134*, 8
Sodium phenobarbital, *130*, 102; *133*, 26, 33
Sodium saccharin, *134*, 73
Sodium selenate, *134*, 8
Sodium selenite, *134*, 8; *138*, 161
–, human whole blood cultures and purified lymphocyte cultures, *130*, 403
–, sister-chromatid exchange, human blood cultures, *141*, 49
Sodium sulphite, *133*, 174, 179, 233; *134*, 161
Soil, collected in Tokyo, Bangkok, Chaing Mai and Manila, activities, abstract, *130*, 370
–, sample, water extract lead smelter ground, *138*, 165
Sominex, *138*, 162
Sorbic acid, high level dose, hepatoma in mice, depletion of reduced glutathione level, *130*, 267
Sorbitol, *134*, 76
Sordaria macrospora, chromosomal rearrangements, *125*, 33
SOS, 9-aminoacridine in Salmonella, *131*, 115
–, chromotest, primary screening tool for genotoxins, further validation, abstract, *130*, 220
–, –, and validation of RK test, *130*, 107
–, inducing activity of chemical mutagens in *E.coli, 131*, 101
–, repair function, SFIA, psoralens in the dark, *131*, 111
–, repair system, role of single-stranded binding protein, abstract, *130*, 205
–, response, expression, *N*-methyl-*N'*-nitro-*N*-nitrosoguanidine and mitomycin C, in *E.coli, 132*, 15
–, system, effect of L-ethionine on expression, in *E.coli, 129*, 319
Spaghetti with meatballs, mutagens in canned foods, *141*, 131
Sperm, abnormality assay, mouse, inhibitory effects of naphthoflavones on DMBA-induced anomalies, *136*, 81
–, –, –, metronidazole and tinidazole, *140*, 137
Spermatogonia, of mouse, X-rays, unequally fractionated, *127*, 65
Spermatozoa, of Drosophila, γ- and neutron-induced visible mutations, *127*, 123
Spermine, effect on UV-induced mutations in *S.pombe, 125*, 205
Spheroids, V79, recovery of thioguanine-resistant cells, *125*, 315
Spice–nitrite reaction products, safrol analogues, abstract, *130*, 378
Spinach, adsorption of pyrolysate mutagens by, *141*, 150
Splenectomy, Fischer-344 rat, triethylenemelamine, cyclophosphamide or urethane, *127*, 169
Spot test, chlordimeform, its metabolites and lisuride hydrogen maleate, *135*, 219
–, of mouse, dimethylbenz[*a*]anthracene, phenobarbital pretreatment, *141*, 105
Sprouts, mung bean, adsorption of pyrolysate mutagens by, *141*, 150
Stainless steel, welders, chromosomes of cultured peripheral lymphocytes, abstract, *130*, 369
Stannous fluoride, *133*, 116
Statistics, alternative distributions of post-implantation death in dominant lethal assay, *128*, 195
–, analysis of micronucleus test, *128*, 161
–, evaluation, of Ames Salmonella assay results, procedure, *128*, 115
–, –, of Salmonella test data in published literature, *134*, 1
–, model for mechanism of alkylation mutagenesis, *125*, 1
–, quantitative analysis of cytotoxic action of chemical mutagens, *129*, 345
–, variations of Ames test, related to genetic stability of Salmonella strains, *130*, 27
Sterigmatocystin, *133*, 32, 39, 116, 233; *134*, 8
–, antimutagenic factors in bacterial cells and cultured broth, abstract, *130*, 384
–, in mouse, sister-chromatid exchanges in vivo, *137*, 111
–, rat bone-marrow cells in vivo, *139*, 203
Steroids, non-hormonal, and hormones and hormone-modifying substances, genotoxic and non-genotoxic carcinogens, *133*, 18
trans-Stilbene oxide, *129*, 303, 304
Stilboestrol dipropionate, *133*, 233
Stilphostrol, *133*, 116
Storage, effect, on prepared Salmonella/microsome test plates, *141*, 7
Streptococcus pneumoniae, mismatched base pairs, abstract, *130*, 177
Streptomycin, *133*, 173, 177; *134*, 161
–, resistance, influence of *recF* on spontaneous mutation in *E.coli, 140*, 67
Streptonigrin, in rabbit oocytes, *127*, 73
Streptozotocin, *125*, 296; *133*, 32, 39
Strontium chromate, *133*, 31, 39
Styrene, *133*, 28, 35, 171, 176, 233; *134*, 8
–, attempt of activation by erythrocytes, abstract, *130*, 230
–, 7,8-glycol, *133*, 171, 176
–, modified micronucleus method, preserved cytoplasm, *130*, 63
–, oxide, *130*, 327; *133*, 171, 176, 233
2-(4-Styryl-3-sulphophenyl)-2*H*-naphtho(1,2-D)triazol, sodium *133*, 233
Succinic acid, *V.faba, 140*, 123

Succinic anhydride, *130*, 102; *133*, 10, 28, 35, 234; *134*, 8
–, RK test, validation, *130*, 107
Sudan-3, *130*, 145
Sulphacetamide, *133*, 116, 234
Sulphadiazine, male mouse mitotic cells, *141*, 201
Sulphaguanidine, male mouse mitotic cells, *141*, 201
Sulphallate, *133*, 28, 35; *134*, 8
–, volatile Salmonella mutagens, *136*, 55
Sulphamic acid, *133*, 174, 179
Sulphanilamide, *133*, 116
Sulphisoxazole, *133*, 29, 36
Sulphosalicylic acid, *133*, 172, 177
Sulphur dioxide gas, *138*, 161
Sulphur, heterocycles, aromatic, methyl-substituted tri- and tetracyclic, Salmonella, *135*, 97
Sulphydryl, changes, and lipid peroxidation, in relation to spindle disturbances, abstract, *130*, 194
Sumithrin, *133*, 234
Sunset Yellow, FCF, *133*, 31, 38, 234
Supernatant, 9000 × *g*, metabolic activation with isolated hepatocytes and liver, mutagenicity of benzidine and 4-aminobiphenyl, *129*, 13
Superoxide dismutase, aberrations in cultured Chinese hamster cells in superoxide-generating system, *140*, 27
–, Chinese hamster ovary cells, *126*, 265
–, inhibition of genotoxicity of bleomycin, CHO/HGPRT assay, *135*, 199
–, and quercetin mutagenesis, in rat-liver cytosol, *129*, 19
–, in Salmonella and *B.subtilis* strains, *137*, 17
Superoxide-generating system, aberrations in cultured Chinese hamster cells, abstract, *130*, 381
–, cultured Chinese hamster cells, aberrations, *140*, 27
Sweden, Local Activity Report 1983 EEMS, *130*, 311
Swine, lymphocytes, radiosensitivity, *126*, 169
Syrian hamster, baby, kidney cells, caffeine and 3-aminobenzamide, *131*, 71
–, cells, metal-induced lesions and repair replication, *131*, 173
–, embryo cells, in culture, amitrole, *140*, 205
–, –, unscheduled DNA synthesis assay, characterization, *129*, 111
Syringic acid, *135*, 111

2,4,5-T, *134*, 78
Tannery, industries, mutagenicity of complex mixtures, abstract, *130*, 246
Tannic acid, *133*, 31, 38
–, and plant, crude extracts, and UV or chemicals, abstract, *130*, 380
Tartrazine, *133*, 234
Tea, bag, *138*, 160
–, instant, *138*, 160
Tellurium diethyl dithiocarbamate, *134*, 8
Telvar, *133*, 228
Temperature, high mutagenic activity formed in pan-broiled pork, *135*, 149
–, hyperthermia, breakage and loss by fission neutrons in Drosophila, *139*, 119
Temperature, (*continued*)
–, hyperthermic enhancement of damage by chemotherapeutic agents, abstract, *130*, 253
–, low, for growth arrest and synchronization of human diploid fibroblasts, *130*, 343
–, sensitive mutants, in Chinese hamster ovary cells, base-pair substitution, *139*, 95
–, 4°, effect of storage, on prepared Salmonella/microsome test, plates, *141*, 7
Tenoran, *133*, 234
Tenotoxicam, bacterial systems, *138*, 133
Test, Ames reversion, 135 compounds, review, *133*, 161
–, anaphase, abstract, *130*, 189
–, bacterial, DNA-repair, 135 compounds, review, *133*, 161
–, –, RK, short-term forward selection assay, *130*, 97
–, battery, to predict carcinogenicity, case study, *141*, 65
–, evaluation of mutagenicity assays, purposes of genetic risk assessment, *134*, 143
–, Fisher exact, or binomial approximation, microcomputer programmes, *141*, 205
–, method development, environmental mutagenesis and carcinogenesis, Meeting Report, *130*, 353
–, micronucleus, ethyl methanesulphonate, *134*, 132
–, –, statistical analysis, *128*, 161
–, non-breeding, methods, for dominant skeletal mutations, shown by ethylnitrosourea, *127*, 189, 191
–, RK, validation, *130*, 107
–, spot, ethyl methanesulphonate, *134*, 132
–, *umu*, application of metabolic activation system, abstract, *130*, 372
–, –, Salmonella TA1535 as host strain, abstract, *130*, 375
Testis, of mouse, X-ray sensitivity of spermatogonial stem cells, *127*, 81
2,3,7,8-Tetrachlorodibenzo-*p*-dioxin, *129*, 303, 305
Tetrachlorodibenzofuran, *133*, 234
Tetrachlorodiphenyl ether, *133*, 234
Tetrachloroethane, *133*, 27, 34
sym-Tetrachloroethane, *133*, 234
Tetrachloroethylene, *133*, 10, 234
–, biologic actions and interactions, letter to Editor, *134*, 167
2,3,5,6-Tetrachloro-4-nitroanisole, *133*, 31, 38
Tetracycline, in V79 Chinese hamster cells, *135*, 211
12-*O*-Tetradecanoylphorbol 13-acetate, *133*, 234
–, Chinese ovary cells, enhancing activity, *129*, 119
–, effect on chemical- and UV-induced mutation in CHO-K1 cells, abstract, *130*, 204
Tetraethyleneimino-1,4-benzoquinone, *133*, 108; *134*, 80
Tetraethylthiuram disulphide, *134*, 8
Tetrahydro-PR toxin, *133*, 234
1,2,3,8-Tetrahydroxy-6-methyl-anthraquinone, microsomal transformation of emodin into direct mutagen, *125*, 135
Tetralin hydroperoxide, *133*, 234
Tetramethylbenzadine, *125*, 302, 303
1,1′-Tetramethylenebis-3-(2-chloroethyl)-3-nitrosourea, *133*, 234
2,4,5,7-Tetranitro-9-fluorenone, *126*, 230
1,3,6,8-Tetranitronaphthalene, *126*, 230
–, Salmonella, *136*, 209
1,3,6,8-Tetranitropyrene, *126*, 230

Thalidomide, *134*, 76
Thenyldiamine, rat hepatocytes, *135*, 131
–, Salmonella, *135*, 105
Theophylline, inhibitors of ADP-ribosyl transferase in Chinese hamster ovary cells, *126*, 63
–, reversal, of alkylator-induced replicon initiation inhibition, *141*, 117
Thimet, *133*, 231
Thioacetamide, *130*, 102, 145; *133*, 10, 27, 34, 172, 177, 234; *134*, 8
–, oxidation to *S*-oxide, *139*, 1
Thiocid, *133*, 234
4,4′-Thiodianiline, *134*, 8
Thioguanine, *130*, 328
–, and diphtheria toxin resistance, by carcinogens, in diploid human fibroblasts, *125*, 95
–, resistance, Chinese hamster V79 cells, some intercalating agents, *137*, 117
–, –, of human blood lymphocytes, X-irradiation-induced, T-cell cloning technique, *125*, 87
–, –, mammalian cells exposed to X-rays, *126*, 215
–, –, in mitogen-stimulated human peripheral lymphocytes, *139*, 41
–, –, in V79 cells, carbaryl plus S9 mix, *125*, 269
–, –, –, soft agar technique, *125*, 105
–, resistant cells, from V79 spheroids, recovery, *125*, 315
–, resistant mutants, in Chinese hamster ovary cells, base-pair substitution, *139*, 95
Thiomersal, *133*, 234
Thionine, *133*, 234
Thiono compounds, oxidation of thioacetamide to *S*-oxide, *139*, 1
Thiopyronine, *133*, 234
–, distribution, in subnuclear fractions of human fibroblast cells, abstract, *130*, 182
Thioridazine hydrochloride, *134*, 73
Thio-Tepa, *133*, 26, 33, 234; *134*, 8
–, in CBA mouse F_1 progeny, electrophoretic enzyme variants, *125*, 71
–, in human lymphocytes, influence of caffeine and 3-aminobenzamide, *126*, 251
2-Thiouracil, *133*, 29, 36
Thiourea, *130*, 102, 145; *133*, 10, 27, 34, 234; *134*, 8
Thiram, mammalian cells in vitro, abstract, *130*, 245
Thymidine, exogenous, influence on mammalian cells treated with alkylating agents, abstract, *130*, 175
–, transport, and phosphorylation, in Friend leukaemia cells, bromodeoxyuridine resistance, *126*, 53
Thymine, *130*, 103
Thyrotropin, *133*, 18
L-Thyroxine Na salt, *133*, 172, 177
Tinidazole, sperm abnormality assay, mouse, *140*, 137
Titanium dioxide, *133*, 32, 39
Titanocene dichloride, *133*, 235
Tobacco, budworm, radiosensitivity, *127*, 49
–, chewers, sister-chromatid exchanges, *139*, 79
–, and formaldehyde exposure in autopsy service workers, *130*, 417
Tobacco, (*continued*)
–, maleic hydrazide and its diethanolamine and potassium salts, chronic exposure, *139*, 25
–, smoke, newborns exposed in utero, breaks, abstract, *130*, 239
–, tar, antimutagenic factors in bacterial cells and cultured broth, abstract, *130*, 384
Tobramycin, *133*, 235
α-Tocopherol, inhibition of DMBA-induced chromosomal breaks in vivo, *136*, 247
Tolbutamide, *134*, 8
Tolidine, *133*, 29, 36
o-Tolidine (3,3′-dimethylbenzidine), *136*, 35
–, Ames assay, effect of acetyl-coenzyme A, *137*, 39
–, rat and hamster assays, *136*, 258
–, Salmonella, *136*, 33
Tolnaftate, *133*, 116
Toluene, *137*, 75
–, in benzene-treated mouse, *135*, 225
–, 2,5-diamine sulphate, *133*, 31, 38
p-Toluene diaminesulphate, *133*, 116
Toluidine Blue, *133*, 235
m-Toluidine, *134*, 8
o-Toluidine, *125*, 303; *133*, 28, 35, 235; *134*, 8
–, hydrochloride, *133*, 30, 37
–, rat and hamster assays, *136*, 258
p-Toluidine, *133*, 235
–, hydrochloride, *133*, 235
4-(*o*-Tolylazo)-*o*-toluidine, *133*, 28, 35, 235
Tormona-80, *133*, 235
Toxaphene, *134*, 8
Toxicology, genetic, suggestions for preserving its continued vitality, *130*, 389
T-2 Toxin, *133*, 234
TPA, immunological activity, abstract, *130*, 379
Tradescantia, clones 02 and 4430, repair of X-ray-induced single-strand breaks in root tips, *131*, 143
Tradescantia paludosa, micronucleus tests, 140 health-related agents, *138*, 157
Treflan, *133*, 235
Trenbolone, in vitro SCE analysis, abstract, *130*, 257
Trenimon, *133*, 27, 34, 116, 235; *134*, 73, 77
–, and anticlastogens in human lymphocyte cultures, rat liver S9, *129*, 195
–, liquid-holding experiments with human peripheral lymphocytes, *128*, 59
–, posttreatment of G2 phase CHO cells with Neurospora endonuclease, *140*, 111
Triallate, herbicides, battery of in vitro and in vivo tests, *136*, 173
–, volatile Salmonella mutagens, *136*, 55
Triaziquinone, *133*, 27, 34
Triaziquone, *133*, 235
–, *see also* Trenimon
1-(2,4,6-Tribromophenyl)-3,3-dimethyltriazene, *133*, 235
Trichlorfon, *133*, 235
4,5,6-Trichloro-2-(2,4-dichlorophenoxy) phenol, *133*, 235
2,4,6-Trichloro-3,3-dimethyl-1-phenyltriazene, *133*, 116
1,1,1-Trichloroethane, *133*, 27, 34

1,1,2-Trichloroethane, *134*, 8
Trichloroethylene, *133*, 10, 27, 34, 235
–, and its metabolites, in vitro and in vivo genotoxic effects, abstract, *130*, 247
2,4,6-Trichloro-PDMT, *134*, 81
2,4,6-Trichlorophenol, *133*, 235; *134*, 8
2,4,5-Trichlorophenoxyacetic acid, *133*, 235
–, Salmonella, *136*, 217
1-(2,4,6-Trichlorophenyl)-3,3-dimethyltriazene, *133*, 235
–, Drosophila, *125*, 243
1,1,1-Trichloropropane 2,3-oxide, *133*, 118, 235
1,1,1-Trichloro-2,3-propenoxide, *133*, 171, 176
Triethylenemelamine, *133*, 26, 33, 235; *134*, 72, 76, 157
–, alkaline elution of rat testicular DNA, *130*, 295
–, 'clastogenic adaptation' of *Vicia faba* root-tip meristem, *140*, 99
–, in normal and splenectomized Fischer-344 rat, *127*, 169
–, plus X-rays, mouse spermatogonial stem cells, *127*, 81
Triethylenephosphoramide, *134*, 74
Triethylenethiophosphoramide, in CBA mouse F_1 progeny, electrophoretic enzyme variant, *125*, 71
Triethyllead chloride, *134*, 79
Trifluralin, *133*, 11, 31, 38, 118, 235; *134*, 8
1,8,9-Trihydroxyanthracene, *133*, 30, 37
5,7,8-Trihydroxy-2-methylchromone, *135*, 81
Trimethoprim, *133*, 118
2,4,5-Trimethylaniline, *134*, 8
7,8,12-Trimethylbenz[*a*]anthracene, Drosophila, *125*, 243
Trimethyl phosphate, *133*, 30, 37, 172, 177
–, in C3H mouse, heritable translocation, abstract, *130*, 380
4,5′,8-Trimethylpsoralen, in the dark, Salmonella, *136*, 49
–, –, SFIA SOS repair function, *131*, 111
2,4,6-Trinitroanisole, Salmonella, *136*, 209
2,4,7-Trinitro-9-fluorenone, *126*, 230
–, human peripheral lymphocytes, *138*, 181
–, in situ microbial test system for airborne workplace mutagens, *130*, 45
2,3,5-Trinitronaphthalene, Salmonella, *136*, 209
2,4,6-Trinitrophenol, Salmonella, *136*, 209
1,3,6-Trinitropyrene, *126*, 230
2,4,6-Trinitroresorcinol, Salmonella, *136*, 209
Trinitrotoluene, *137*, 75
–, exposed workers, urine studies, abstract, *130*, 262
–, Salmonella, *136*, 209
2,4,6-Trinitro-*m*-toluidine, Salmonella, *136*, 209
Trioxane, in Salmonella, *136*, 169
Trioxsalen, in the dark, SFIA SOS repair function, *131*, 111
Tripelennamine, *125*, 303
–, rat hepatocytes, *135*, 131
Triphenyltin hydroxide, *133*, 27, 34
Tris(1-aziridinyl)phosphine oxide, *133*, 102
Tris(2-chloroethyl)amine, *133*, 235
Tris(2,3-dibromopropyl)phosphate, *133*, 29, 36; *134*, 8, 73
–, rat hepatocytes, monolayer culture, *126*, 205
–, volatile Salmonella mutagens, *136*, 55
Tris-EDTA, *E.coli* K-12 343/113, microbial mutagenicity assays, *130*, 87
Tris(hydroxymethyl)aminomethane, *130*, 103
Tris(1-(2-methyl)aziridinyl)phosphine oxide, *133*, 112
Trisodium nitrilotriacetate, *133*, 32, 39
Triton X-15, and alkaline elution of rat testicular DNA, *130*, 283
Trofosfamide, *133*, 236; *134*, 81
–, in vitro activation, microsomal enzymes, abstract, *130*, 228
Troleandomycin acetate, *129*, 303, 304
Trp-P1, *133*, 171, 175
–, adsorption by vegetable fibres, *141*, 149
–, adult rat hepatocytes, *137*, 123
–, in burdock, desmutagenic factor, *129*, 25
Trp-P2, *131*, 106; *133*, 171, 176
–, adsorption by vegetable fibres, *141*, 149
–, adult rat hepatocytes, *137*, 123
–, in burdock, desmutagenic factor, *129*, 25
–, frame-shift- in TA98 and TA1538, antimutagenic effects of germanium oxide, *125*, 145
–, mouse bone marrow, *140*, 49
Trypan Blue, *133*, 27, 34; *136*, 35
–, rat and hamster assays, *136*, 258
Tryptamine, and dimethylnitrosamine, in *A.thaliana, 139*, 29
Tryptophan, independence, influence of *recF* on spontaneous mutation in *E.coli, 140*, 67
–, pyrolysis, products, effects of glutathione and uridine-5′-diphosphoglucuronic acid, S9 fraction, *139*, 15
–, –, –, rat intestinal and liver S9 fraction, abstract, *130*, 229
–, Salmonella, *136*, 217
–, treated with nitrite, acidic solution, abstract, *130*, 376
L-Tryptophan, *130*, 103
Tumour, cells, Ehrlich ascites, X-rays, 6-thioguanine resistance, *126*, 215
–, cell strains, human, Mer^-, relationship with methyl purines by MNNG in adenovirus-5 DNA, *131*, 45
–, enhancing effect of ascorbic acid, *133*, 145
–, intestinal, in dimethylhydrazine-injected rat, *139*, 143
–, in vivo and in vitro cytogenetic effects of amsacrina, *138*, 87
–, promoters, effects upon microtubule protein, in vitro polymerization system, abstract, *130*, 213
–, –, in V79 cells, inhibiting activity on cell–cell communication, abstract, *130*, 361
–, –, in yeast and mouse, genetic mode of action, abstract, *130*, 186
Tums, *138*, 162
Tuna, mutagens in canned foods, *141*, 131
Turkey, chunk, mutagens in canned foods, *141*, 131
Turmeric, *133*, 236
–, in mouse, *136*, 85
Tylenol, *138*, 162
Tyramine, and soy sauce after nitrite treatment, abstract, *130*, 384
Tyre, plant, urinary mutagenicity in workers, abstract, *130*, 248

Ulcus cruris, enzymatic repair of premutagenic DNA lesions in human epidermis, *131*, 184
Ultrasound, therapeutic, in human lymphocytes, in vitro and in vivo, *138*, 75
Umbra limi, cells, chemical mutagens, *129*, 129

United Kingdom, Local Activity Report 1983 EEMS, *130*, 312
Unscheduled DNA synthesis, assay, characterization, Syrian hamster embryo cells, *129*, 111
Unwinding method, DNA repair kinetics after low doses of X-rays, *131*, 19
Uracil, excision, enzymic, effects of 5-azacytosine in DNA, *140*, 93
Uracil mustard, *133*, 27, 34, 236; *134*, 8
Uracil–DNA glycosylase, activity, quantitation, human epidermis, *131*, 183
Urea, *130*, 103
Urethane, *130*, 102, 145; *133*, 10, 26, 33, 118, 236; *134*, 8, 72, 76
–, in normal and splenectomized Fischer-344 rat, *127*, 169
–, *Oryzias latipes*, *125*, 221
Uric acid, *133*, 173, 178
Uridine-5′-diphosphoglucuronic acid, effect on tryptophan pyrolysis products by S9 fraction, *139*, 15
Urinary system, congenital anomalies, estimates of detriment, *128*, 90
Urinary tract, agents that increase frequency of neoplasms, *133*, 16
Urine, mutagenicity, to monitor coal liquefaction workers, *136*, 201
–, various species fed *N*-[4-(5-nitro-2-furyl)-2-thiazolyl]formamide, or 2-amino-4-(5-nitro-2-furyl)thiazole, *135*, 169
UV, and alkylating agents, Syrian baby hamster kidney cells, caffeine and 3-aminobenzamide as DNA repair inhibitors, *131*, 71

Validation, and utilization, test method development, environmental mutagenesis and carcinogenesis, Meeting Report, *130*, 353
Valine methylamide, and N^2-acetyl histidine methylamide, dose monitors, abstract, *130*, 181
Vanillic acid, *135*, 111
Vanillin, *135*, 111
Vegetable fibres, adsorption of pyrolysate mutagens by, *141*, 149
Verruculogin, *133*, 236
Vicia faba, incubation with nitrite, intercultivar difference with respect to mutagenicity, *130*, 391
–, maleic hydrazide and its putative degradation products, *140*, 123
–, root-tip meristem, 'clastogenic adaptation', *140*, 99
Vinblastine sulphate, *133*, 118
Vincristine, evaluation of potential, multiple parameters, *138*, 55
–, leukaemia patients, micronucleus test, *130*, 113
–, mouse, spermatogonia, *140*, 193
Vinylacetate, cultured mammalian cells, abstract, *130*, 249
Vinyl carbamate, rodent species, *126*, 159
Vinyl chloride, *133*, 27, 34, 236; *134*, 8, 73, 77, 97, 105, 106
–, monomer, in mouse micronucleus assay, abstract, *130*, 250
Vinylidene chloride, *133*, 27, 34
Viriditoxin, *133*, 236
Virus, ethyl methanesulphonate, *134*, 117
–, Simian, apurinic sites, cause of mutations, *129*, 141
Virus, Simian, (*continued*)
–, –, 40, UV-irradiated, replicative intermediates, *132*, 1
Vitamin B-6, *138*, 162
Vitamin B-12, *138*, 162
Vitamin E, methyl ethyl ketone peroxide-induced peroxidative damage to rat brain DNA, *126*, 113
Vitexin, *135*, 81
Vulcanizers, lymphocytes, biological monitoring of workers in rubber industry, *138*, 99, 105

Water, abstracts of papers of EEMS 1983, *130*, 237
–, drinking, reservoir, *138*, 165
–, –, treatment, activity at different stages, V79/HGPRT system, abstract, *130*, 242
–, extract, of grass-wrack pondweed, *129*, 33
–, surface, and drinking Belgian water treatment plant, abstract, *130*, 241
–, waste, components, generated in production of nitrobenzoic acids and nitrotoluenes, Salmonella, *137*, 71
–, well, shallow, sample, *138*, 165
–, –, with radium, *138*, 165
Weigle reactivation, UV-irradiated ΦX174 double-stranded DNA, excision repair, *131*, 1
Wogonin, *135*, 80
Wood, stove, smoke-emission samples, SCE induction in CHO cells, abstract, *130*, 240
Wool Green BS, *133*, 236

Xanthine, enzymic oxidation, Chinese hamster ovary cells, *126*, 265
Xanthine oxidase, aberrations in cultured Chinese hamster cells in superoxide-generating system, *140*, 27
–, Chinese hamster ovary cells, *126*, 265
Xenobiotic, metabolism, assay for gene mutation in human lymphoblast line AHH-1, *128*, 221
Xenobiotic metabolizing enzymes, stability during incubations for liver microsomal assay, abstract, *130*, 227
Xenopus laevis cells, mitomycin C damage, plus caffeine, *128*, 25
Xeroderma pigmentosum, cells, rate of removal of pyrimidine dimers, *132*, 21
–, complementation group C, preferential repair of nuclear matrix associated DNA, *141*, 75
–, fibroblasts, host-cell reactivation of *cis*-diammine-dichloroplatinum(II)-treated SV40 DNA, *132*, 181
–, lymphoblasts, far-UV light, *128*, 47
2,4-Xylidine, *134*, 7

Yeast, acrylonitrile, *134*, 52
–, analysis of replication of diepoxybutane-alkylated DNA in *rad3* mutant, *132*, 161
–, cells, ethidium analogues, petite induction, *127*, 15
–, –, level of cytochrome P450, various growth conditions, abstract, *130*, 223
–, –, petite mutants by photodynamic action of acridine compounds, *125*, 213
–, cellular metabolism, abstracts of papers of EEMS 1983, *130*, 223
–, cisplatin, *127*, 23

Yeast, (*continued*)
–, DNA ligase gene, expression in mammalian cells, abstract, *130*, 201
–, drug synergism or antagonism in induction of diploid meiotic products, *141*, 161
–, erythrosine, *138*, 153
–, fitness of genotypes and populations, effect of newly induced mutations, *129*, 327
–, 1-nitropyrene, deficiency in nitroreductase, *139*, 115
–, possible inducibility of error-prone repair, *129*, 3
–, repair-deficient, and wild-type, rapid cytotoxic assay, abstract, *130*, 201
Yeast, (*continued*)
–, S9 liver preparations from mouse and chicken, *140*, 75
Yugoslavia, Local Activity Report 1983 EEMS, *130*, 313

Zea mays, 11 herbicides and 13 combinations, *136*, 233
Zearalenone, *133*, 236
Zeranol, in vitro SCE analysis, abstract, *130*, 257
Zinc chloride, *131*, 173; *138*, 161
Zinc diethyl dithiocarbamate, *134*, 8
Zinc sulphate, *133*, 236
Zineb, *133*, 236
Ziram, *133*, 236

MUTATION RESEARCH

International journal on mutagenesis, chromosome breakage and related subjects

INSTRUCTIONS TO AUTHORS

Types of paper *Mutation Research* contains 3 types of publication. (1) Papers reporting results of original fundamental research concerning mutagenesis, chromosome breakage and related subjects. (2) Review articles. (3) Short communications (published in the Section *Mutation Research Letters*).

General arrangement of papers Papers should be preferably in English, but may also be submitted in French or German. A summary (about 300 words) is mandatory for all (normal-length) articles. Papers in German or French should have a summary in English. The first paragraph of the article should summarize the research problem and the pertinent findings. The main text may be divided into sections such as Materials and methods, Experimental, Results, Discussion.

In papers mentioning chemicals, authors are requested to include *CAS registry numbers*. Registry numbers can be found by consulting Chemical Abstracts Ninth Collective Molecule Formula Index, by using Lockheed's computer access file named Chemline or by contacting the Chemical Abstracts Service, P.O. Box 3012, Columbus, Ohio 43210 (U.S.A.).

Preparation of text (a) Manuscripts should be typewritten, double-spaced with wide margins, on one side of the paper only. Legends, footnotes—everything—must also be double-spaced. (b) The full postal address(es) of the author(s), including postal code and country, should be given after their name(s). (c) Line-drawn figures (including graphs) should be submitted in black ink on white paper and must be lettered ready for direct reproduction. Sharp photoprints of lettered line drawings may also be submitted. It is important that the drawings themselves AND the lettering are in proportion and large enough to allow for reduction before printing. Figures should be prepared suitably for either one column width (76 mm) or the entire page width (160 mm). The maximum height is 206 mm. The amount of reduction that will be made can be judged from the sizes of figures in recent issues of the journal. (d) Half-tone figures should be submitted as very sharp and contrasty glossy photoprints, separate from line drawings. (e) Legends for both line-drawn and half-tone figures should be typed on separate sheets. (f) Tables (also to be typed double-spaced) should be provided with headings. (g) Typescripts should be carefully checked before submission to obviate alterations after acceptance.

References The journal uses the Harvard system, in which names and dates are given in the body of the text and an alphabetical list of references at the end of the manuscript. References in the text should give the author's surname with the year of publication, e.g.: Smith (1980); Smith and Jones (1967a, 1979b); Baker et al. (1978). In the list of references, titles of journals should be abbreviated to conform with *Chemical Abstracts Bibliographic Guide for Authors and Editors 1974*. References to books should give details of chapter title, editors, title of the book, publishers and their location.

Examples:

Ehrenberg, L., and C.A. Wachtmeister (1977) Safety precautions in work with mutagenic and carcinogenic chemicals, in: B.J. Kilbey, M.S. Legator, W. Nichols and C. Ramel (Eds.), Handbook of Mutagenicity Test Procedures, Elsevier, Amsterdam, pp. 401–410.

Kastenbaum, M.A., and K.O. Bowman (1970) Tables for determining the statistical significance of mutation frequencies, Mutation Res., 9, 527–549.

Contributions—in triplicate (one original plus two copies, also of the illustrations)—may be sent to Prof. F.H. Sobels, Managing Editor, *Mutation Research*, Department of Radiation Genetics and Chemical Mutagenesis, State University of Leiden, Sylvius Laboratories, Wassenaarseweg 72, P.O. Box 9503, 2300 RA Leiden (The Netherlands).

or to

Dr. F.J. de Serres, *Mutation Research*, NIEHS, P.O. Box 12233, Research Triangle Park, NC 27709 (U.S.A.).

Manuscripts in the field of Molecular Genetics may be submitted to Dr. B.W. Glickman, *Mutation Research*, Biology Department, York University, 4700 Keele Street, Downsview, Ont. M3J 1P3 (Canada).

Manuscripts for publication in *DNA Repair Reports* may be submitted to Professor Philip C. Hanawalt, Herrin Biology Laboratories, Stanford University, Stanford, CA 94305 (U.S.A.)

or to

Dr. P.H.M. Lohman, Medical Biological Laboratory TNO, Lange Kleiweg 139, P.O. Box 45, 2280 AA Rijswijk (The Netherlands)

or to

Professor H. Takebe, Department of Experimental Radiology, Faculty of Medicine, Kyoto University, Kyoto 606 (Japan)

Manuscripts for publication in *Mutation Research Letters* may be submitted to Dr. R.J. Preston, Oak Ridge National Laboratory, Biology Division, P.O. Box Y, Oak Ridge, TN 37830 (U.S.A.)

Reprints 50 reprints of each article are sent to the author(s) free of charge. Additional reprints can be ordered by the author(s).

Advertising For advertising rates apply to the Publishers.

Copyright © 1984, Elsevier Science Publishers B.V. (Biomedical Division)

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the permission of the publisher, Elsevier Science Publishers B.V. (Biomedical Division), P.O. Box 1527, 1000 BM Amsterdam (The Netherlands).

Submission of a paper to this journal entails the author's irrevocable and exclusive authorization of the publisher to collect any sums or considerations for copying or reproduction payable by third parties (as mentioned in article 17 paragraph 2 of the Dutch Copyright Act of 1912 and in the Royal Decree of June 20, 1974 (S. 351) pursuant to article 16b of the Dutch Copyright Act of 1912) and/or to act in or out of Court in connection therewith.

EVALUATION OF SHORT-TERM TESTS FOR CARCINOGENS

Report of the International Program on Chemical Safety
Collaborative Study on In Vitro Assays

Published on behalf of the International Programme on Chemical Safety (a collaborative programme of the World Health Organization, the International Labour Organisation and the United Nations Environment Program).

edited by **J. Ashby, F.J. de Serres, M. Draper, M. Ishidate Jr., B.H. Margolin, B.E. Matter** *and* **M.D. Shelby**

PROGRESS IN MUTATION RESEARCH VOLUME 5

There is concern that inadvertent exposure of humans to chemical carcinogens contributes to cancer incidence and that this can be reduced through identification and control of human carcinogens.

This book shows how the carcinogenicity of chemicals is assessed using data from rodent studies. Short-term tests have been developed to detect rodent carcinogens and short-term test performances are assessed primarily using rodent carcinogenicity results. No single short-term test is capable of detecting all carcinogens as positive.

The objective of this volume, which reports on the current IPCS Collaborative Study, is to generate a database that provides a basis for selecting one or more in vitro eukaryotic short-term tests to complement the Salmonella test developed by Professor Bruce Ames.

"The present study was, however, specifically designed to define complementary assay that can be successfully employed to screen carcinogens. If one bears this in mind one can only admire the careful thoughts that have gone into both the design and the detailed evaluation of the collected data base. As such it is unique and undoubtedly presents an important step forward in the detection of carcinogens in the human environment."

F.H. Sobels,
Leiden, The Netherlands

CONTENTS: Preface. Part I. Background and summaries (10 papers, 15 contributors). Part II. Investigators' reports (61 papers, 128 contributors). Part III. Appendices (4 appendices, 7 contributors). Author Index. Subject Index.

1985 x + 762 pages
Price: US $139.00/Dfl. 375.00
ISBN 0-444-80615-6

ELSEVIER

ELSEVIER SCIENCE PUBLISHERS
P.O. Box 211, 1000 AE Amsterdam, The Netherlands

Distributor in the U.S.A. and Canada:
ELSEVIER SCIENCE PUBLISHING CO. INC., P.O. Box 1663, Grand Central Station, New York, NY 10163, U.S.A.

The Dutch guilder price is definitive. US $ prices are subject to exchange rate fluctuations. Prices are excl. B.T.W. for Dutch customers.

FL37A121

DNA Repair Reports

MANAGING EDITORS:
P.C. Hanawalt, *Stanford, CA, U.S.A.,* **P.H.M. Lohman,** *Rijswijk, The Netherlands and*
H. Takebe, *Kyoto, Japan*

This new section of Mutation Research will provide an integrated coverage of the research related to DNA repair. This is in response to the demand of workers in the DNA repair field for a top-class forum in which to publish their work.
Original papers and short communications in this field will be published at regular intervals and also mini-reviews in different relevant sub-areas, which will provide a 'state of the art' synopsis for particular topics. Topics will include:
- comparisons of cell-to-tissue systems
- cloned DNA repair genes
- transformation and mutagen testing

DNA Repair Reports will be a unique international forum for publication in the many different scientific disciplines pertaining to the DNA repair sciences. Such fields will include Molecular Biology, Genetics, Radiobiology, Mutagenesis, Cancer Research, Biochemistry and Cell Biology. The emphasis of this journal section will be on rapid pulication.

EDITORIAL BOARD
D. Bootsma, *Waddinxveen*
B.A. Bridges, *Brighton*
P.A. Cerutti, *Lausanne*
J.E. Cleaver, *San Francisco, CA*
R.S. Day, III, *Bethesda, MD*
R.D. Devoret, *Gif-sur-Yvette*
A. Ganesan, *Stanford, CA*
B.W. Glickman, *Toronto, Ont.*
R.H. Haynes, *Toronto, Ont.*
A. Lehmann, *Brighton*
T. Lindahl, *London*
R. Meneghini, *Sao Paulo*
E. Moustacchi, *Paris*
A.T. Natarajan, *Leiden*
R.B. Painter, *San Francisco, CA*
J.M. Parry, *Swansea*
M.C. Paterson, *Chalk River, Ont.*
M.F. Rajewski, *Essen*
J.J. Roberts, *Sutton*
A. Sarasin, *Villejuif*
M.S. Sasaki, *Kyoto*
R.B. Setlow, *Upton, NY*
C.A. Smith, *Stanford, CA*
F.H. Sobels, *Leiden (Chairman of the Board of Managing Editors)*
B.S. Strauss, *Chicago, IL*
B. Sutherland, *Upton, NY*
A.A. van Zeeland, *Leiden*
R.C. von Borstel, *Edmonton, Alb.*
G.C. Walker, *Cambridge, MA*

Subscribers to **Mutation Research** *will receive DNA Repair Reports as part of their subscription but it may also be purchased separately at the rates shown below:*

1985: Vols. 145 and 146
(2 volumes in 6 issues)
US$ 179.25/Dfl. 484.00
including postage and handling.
ISSN 0167-8817

ELSEVIER
ELSEVIER SCIENCE PUBLISHERS

For further information and/or free sample copy please write to

In the U.S.A. and Canada:
Journal Information Center
ELSEVIER SCIENCE PUBLISHERS,
52 Vanderbilt Ave., New York, NY 10017, U.S.A.

In all other countries:
ELSEVIER
SCIENCE PUBLISHERS
P.O. Box 211, 1000 AE Amsterdam, The Netherlands

Please send your orders to the Amsterdam Address

The Dutch guilder price is definitive. US$ prices are subject to exchange rate fluctuations. Prices are excl. B.T.W. for Dutch customers.

MUTATION RESEARCH

International journal on mutagenesis, chromosome breakage and related subjects

Publication schedule for 1985

MR is published according to a volume-numbering scheme that embraces all sections of the journal, in addition each section has its own code colour.

Reg (green), 'regular' volumes; EMS (blue), Section on Environmental Mutagenesis and Related Subjects; DRR (brown), 'DNA Repair Reports', special section of Mutation Research; Rev (purple), Reviews in Genetic Toxicology; GTT (red), Genetic Toxicology Testing; MRLett (yellow), Mutation Research Letters.

1985	Reg	EMS	DRR	Rev	GTT	MRLett
Jan.	148/1		145/1	153/1	155/1	142/1
Feb.	148/2	147/1			155/2	142/2
Mar.	149/1		145/2	153/2	155/3	142/3
Apr.	149/2	147/2			156/1	142/4
May	149/3		145/3	153/3	156/2	143/1
June	150/1	147/3			156/3	143/2
July	150/2		146/1	154/1	157/1	143/3
Aug.	151/1	147/4			157/2	143/4
Sep.	151/2		146/2	154/2	157/3	144/1
Oct.	152/1	147/5			158/1	144/2
Nov.	152/2		146/3	154/3	158/2	144/3
Dec.	152/3	147/6			158/3	144/4
	INDEX *					
Total						
17 vols.	5 vols.	1 vol.	2 vols.	2 vols.	4 vols.	3 vols.
142–158	148–152	147	145, 146	153, 154	155–158	142–144
54 issues	12 issues	6 issues	6 issues	6 issues	12 issues	12 issues
+ Index						

* Author Index and Subject Index for the year 1985 (covering all sections).

Subscription Information 1985

MUTATION RESEARCH (complete)
1985, Volumes 142–158 (17 volumes in 54 issues + Cumulative Index 1985)
Full subscription: Dfl. 3723.00 (US $ 1378.00) + Dfl. 374.00 (US $ 140.00) postage, packaging and handling. Total price Dfl. 4097.00 (US $ 1518.00)

MUTATION RESEARCH/DNA REPAIR REPORTS
1985, Volumes 145, 146 (2 volumes in 6 issues)
Part subscription: Dfl. 440.00 (US $ 163.00) + Dfl. 44.00 (US $ 16.25) postage, packaging and handling. Total price Dfl. 484.00 (US $ 179.25)

MUTATION RESEARCH/REVIEWS IN GENETIC TOXICOLOGY
1985, Volumes 153, 154 (2 volumes in 6 issues)
Part subscription: Dfl. 440.00 (US $ 163.00) + Dfl. 44.00 (US $ 16.25) postage, packaging and handling. Total price Dfl. 484.00 (US $179.25)

MUTATION RESEARCH/GENETIC TOXICOLOGY TESTING
1985, Volumes 155–158 (4 volumes in 12 issues)
Part subscription: Dfl. 880.00 (US $ 326.00) + Dfl. 88.00 (US $ 32.50) postage, packaging and handling. Total price Dfl. 968.00 (US $ 358.50)

MUTATION RESEARCH LETTERS
1985, Volumes 142–144 (3 volumes in 12 issues)
Part subscription: Dfl. 660.00 (US $ 244.50) + Dfl. 66.00 (US $ 24.50) postage, packaging and handling. Total price Dfl. 726.00 (US $ 269.00)

The Dutch guilder price is definitive. The US dollar price is subject to exchange rate fluctuations and is only given as a guide.

Journals are sent by surface delivery to all countries, except the following countries where SAL air delivery (Surface Airlifted Mail) is ensured: U.S.A., Canada, Japan, Australia, New Zealand, P.R. China, India, Israel, South Africa, Malaysia, Singapore, South Korea, Taiwan, Pakistan, Hong Kong, Brazil. Air mail rates for other countries are available on request.

Subscription orders can only be entered by calender year (Jan.–Dec.) and should be sent to: Elsevier Science Publishers, Journals Department, P.O. Box 211, 1000 AE Amsterdam (The Netherlands), telex 18582 ESPA NL, or to your usual subscription agent.

Claims for missing issues should be made within three months of publication, otherwise they cannot be honoured free of charge.

The Publisher reserves the right to issue additional volumes during the course of the year. Such volumes will be invoiced before publication and delivered after receipt of payment.

In the United States and Canada: For further information concerning this or any other Elsevier Science Publishers journal, contact Elsevier Science Publishers, Journal Information Center, 52 Vanderbilt Avenue, New York, NY 10017, tel. (212) 370-5520.

Reprints 50 reprints of each article are sent to the author(s) free of charge. Additional reprints can be ordered by the author(s).

Advertising For advertising rates apply to the Publishers.

CONTENTS

Cumulative Author Index 1984 (Volumes 125–141) 1–11

Cumulative Subject Index 1984 (Volumes 125–141) 13–60

Instructions to Authors 61

Cites in Biological Abstracts; Chemical Abstracts; Current Contents / Life Sciences; Excerpta Medica; Index Medicus; Informedicus

PRINTED IN THE NETHERLANDS

Contributions–in triplicate (one original plus two copies, also of the illustrations)–may be sent to Prof. F.H. Sobels, Managing Editor, *Mutation Research*, Department of Radiation Genetics and Chemical Mutagenesis, State University of Leiden, Sylvius Laboratories, Wassenaarseweg 72, P.O. 9503, 2300 RA Leiden (The Netherlands).

or to

Dr. F.J. de Serres, *Mutation Research*, NIEHS, P.O. Box 12233, Research Triangle Park, NC 27709 (U.S.A.).

Manuscripts in the field of Molecular Genetics may be submitted to

Dr. B.W. Glickman, *Mutation Research*, Biology Department, York University, 4700 Keele Street, Downsview, Ont. M3J 1P3 (Canada).

Manuscripts for publication in *DNA Repair Reports* may be submitted to Professor Philip C. Hanawalt, Herrin Biology Laboratories, Stanford University, Stanford University, Stanford, CA 94305 (U.S.A.)

or to

Dr. P.H.M. Lohman, Medical Biological Laboratory TNO, Lange Kleiweg 139, P.O. Box 45, 2280 AA Rijswijk (The Netherlands)

or to

Professor H.Takebe, Department of Experimental Radiology, Faculty of Medicine, Kyoto University, Kyoto 606 (Japan)

Manuscripts for publication in *Mutation Research Letters* may be submitted to Dr. R.J. Preston, Oak Ridge National Laboratory, Biology Division, P.O. Box Y. Oak Ridge, TN 37830 (U.S.A.)

Copyright © 1984, Elsevier Science Publishers B.V. (Biomedical Division) All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without permission of the publisher, Elsevier Science Publishers B.V. (Biomedical Division), P.O. Box 1527, 1000 BM Amsterdam (The Netherlands).

Submission of a paper to this journal entails the author's irrevocable and exclusive authorization of the publisher to collect any sums or considerations for copying or reproduction payable by third parties (as mentioned in article 17 paragraph 2 of the Dutch Copyright Act of 1912 and in the Royal Decree of June 20, 1974 (S. 351) pursuant to article 16b of the Dutch Copyright Act of 1912) and/or to act in or out of Court in connection therewith.

Special regulations for readers in the U.S.A. This journal has been registered with the Copyright Clearance Center. Inc. Consent is given for copying of articles for personal or internal use, or for the personal use of specific clients. This consent is given on the condition that the copier pays through the Center the per-copy fee states in the code on the first page of each article for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. The appropriate fee should be forwarded with a copy of the first page of the article to the Copyright Clearance Center, Inc., 27 Congress Street, SALEM, MA 01970 (U.S.A.). If no code appears in an article, the author has not given broad consent to copy and permission to copy must be obtained directly from the author. All articles published prior to 1980 may be copied for a per-copy fee of U.S. $2.25, also payable through the Center. This consent does not extend to other kinds of copying, such as for general distribution, resale, advertising and promotion purpose, or for creating new collective works. Special written permission must be obtained from the publisher for such copying.

Special regulations for authors. Upon acceptance of an article by the journal, the author(s) will be asked to transfer copyright of the article to the publisher. This transfer will ensure the widest possible dissemination of information.

3 8198 306 992 783
THE UNIVERSITY OF ILLINOIS AT CHICAGO